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UNITED STATES DEPARTMENT OF COMMERCE
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WEATHER BUREAU - - F. W. Reichelderfer, *Chief*

MONTHLY WEATHER REVIEW

SEPTEMBER 1945

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MONTHLY WEATHER REVIEW

Acting Editor, Robert N. Culnan

VOL. 73, No. 9
W. B. No. 1446

SEPTEMBER 1945

CLOSED NOVEMBER 5, 1945
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METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR SEPTEMBER 1945

AEROLOGICAL OBSERVATIONS

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidity in percent, obtained by radiosondes during September 1945*

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL

Altitude (meters) m. s. l.	Albany, N. Y. (93 m.)				Albuquerque, N. Mex. (1,620 m.)				Apalachicola, Fla. (5 m.)				Atlanta, Ga. (300 m.)				Big Spring, Tex. (774 m.)				Bismarck, N. Dak. (505 m.)				Boise, Idaho (868 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	29	1,009	16.7	85	29	837	22.6	27	30	1,017	25.6	86	23	985	22.4	82	30	927	25.0	47	30	955	12.7	68	30	916	15.9	45
500	29	962	16.2	77					30	961	23.8	76	23	963	23.1	73												
1,000	29	907	13.8	76					30	907	20.6	75	23	909	20.2	70	30	903	24.3	46	30	901	12.8	57	30	902	17.0	39
1,500	29	854	11.9	74					30	856	17.5	74	23	858	16.9	72	30	853	21.4	47	30	848	10.1	57	30	851	15.2	35
2,000	29	804	9.7	68	29	801	21.9	25	30	807	14.5	70	23	808	14.3	64	30	804	18.5	48	30	798	7.6	57	30	801	11.5	37
2,500	29	758	7.5	63	29	756	18.2	27	30	761	11.9	64	23	762	11.7	60	30	759	15.0	49	30	752	4.8	57	30	754	7.8	41
3,000	29	713	5.4	57	29	713	13.8	32	30	716	9.1	63	23	718	9.2	56	30	715	11.8	47	30	706	1.9	56	30	709	4.3	40
4,000	29	630	0.7	49	29	632	5.0	42	29	635	3.5	52	22	635	3.5	52	30	634	4.9	49	30	623	−4.1	58	30	627	−1.8	40
5,000	28	556	−4.7	46	28	558	−3.5	53	29	560	−2.0	50	22	561	−2.2	42	30	560	−2.0	45	29	548	−10.3	60	30	552	−8.3	40
6,000	28	489	−10.9	44	27	491	−10.5	45	29	493	−8.0	53	22	494	−8.1	----	30	493	−8.1	30	29	481	−17.1	53	30	484	−14.7	40
7,000	28	429	−17.3	----	27	431	−17.0	----	28	434	−14.1	49	22	434	−14.3	----	30	433	−14.4	----	29	420	−24.1	----	30	424	−21.6	----
8,000	28	374	−24.3	----	27	376	−24.2	----	28	379	−20.8	47	22	380	−21.2	----	29	379	−21.5	----	29	365	−31.3	----	30	369	−29.0	----
9,000	28	325	−31.4	----	27	327	−31.3	----	28	330	−27.7	----	21	330	−28.2	----	28	330	−28.5	----	28	316	−38.4	----	30	320	−36.5	----
10,000	28	282	−39.1	----	27	284	−38.5	----	28	287	−35.6	----	21	287	−35.9	----	28	287	−35.7	----	28	273	−44.8	----	30	277	−42.8	----
11,000	28	243	−46.9	----	27	244	−45.5	----	28	248	−43.7	----	21	248	−43.3	----	27	247	−42.9	----	28	235	−49.7	----	27	240	−48.1	----
12,000	27	209	−53.6	----	25	210	−51.3	----	28	213	−51.5	----	21	213	−50.5	----	24	213	−49.6	----	27	201	−53.0	----	26	205	−53.2	----
13,000	27	178	−59.5	----	23	180	−56.3	----	27	182	−58.7	----	21	182	−57.2	----	22	182	−55.6	----	25	172	−54.5	----	25	176	−56.8	----
14,000	22	152	−62.8	----	20	154	−60.9	----	22	155	−65.6	----	20	155	−63.0	----	18	156	−61.0	----	17	148	−56.5	----	19	151	−60.1	----
15,000	13	129	−64.7	----	13	131	−65.7	----	16	131	−69.7	----	14	132	−67.2	----	10	133	−67.2	----	15	127	−58.7	----	11	128	−61.0	----
16,000	7	109	−63.9	----	5	110	−67.8	----	9	111	−70.4	----	7	112	−70.0	----					8	108	−58.8	----	7	109	−63.9	----
17,000													5	95	−70.0	----												

Altitude (meters) m. s. l.	Brownsville, Tex. (6 m.)				Buffalo, N. Y. (221 m.)				Burrwood, La. (2 m.)				Caribou, Maine (193 m.)				Charleston, S. C. (14 m.)				Clovis, N. Mex. (1,306 m.)				Denver, Colo. (1,616 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	30	1,013	26.0	81	30	993	16.5	83	30	1,017	26.4	82	30	997	11.8	84	29	1,017	23.6	93	30	869	20.4	44	30	840	15.4	48
500	30	958	23.5	77	30	962	16.7	75	30	961	23.1	78	30	961	12.3	74	29	963	22.9	81								
1,000	30	904	20.8	71	30	906	14.7	72	30	907	20.2	71	30	905	10.8	72	29	909	20.2	77								
1,500	30	854	18.5	60	30	854	12.2	67	30	856	17.5	69	30	853	8.7	68	29	858	17.2	76	30	850	21.7	40				
2,000	30	805	16.1	51	30	804	10.0	62	30	807	14.6	66	30	802	7.0	59	29	808	14.5	70	30	802	19.5	41	30	802	15.3	42
2,500	30	759	13.6	45	30	758	7.9	59	30	761	11.9	62	29	755	4.8	51	29	762	12.0	62	30	757	16.2	43	30	756	12.1	46
3,000	30	715	10.8	43	30	712	5.8	49	30	716	9.2	59	29	709	3.0	45	29	717	9.2	60	30	713	12.6	43	30	712	8.6	48
4,000	29	634	5.5	38	30	630	0.7	48	30	635	3.6	57	29	627	−2.0	47	29	636	3.7	55	30	632	4.5	50	30	630	2.1	52
5,000	28	560	−0.6	39	28	556	−4.8	43	30	560	−2.0	50	29	552	−7.5	47	28	561	−1.7	54	30	558	−2.8	51	29	556	−5.6	64
6,000	28	493	−7.0	42	27	489	−11.0	40	29	493	−8.0	49	29	484	−13.4	46	28	494	−7.4	50	30	491	−9.6	40	29	488	−12.7	52
7,000	28	434	−13.4	40	27	429	−17.6	----	28	433	−14.5	41	28	424	−20.1	43	28	434	−13.6	49	30	431	−16.0	38	29	428	−19.6	----
8,000	28	379	−20.2	----	26	375	−24.4	----	28	379	−21.4	----	28	370	−26.8	----	28	380	−20.6	47	30	377	−22.9	----	28	374	−26.8	----
9,000	28	330	−27.5	----	25	325	−31.4	----	28	330	−28.8	----	27	321	−33.9	----	28	331	−27.9	----	29	328	−30.4	----	28	324	−34.7	----
10,000	28	287	−34.9	----	23	282	−39.0	----	28	286	−36.5	----	27	278	−41.3	----	27	288	−35.6	----	29	284	−38.0	----	28	280	−42.0	----
11,000	28	248	−42.6	----	19	243	−46.3	----	28	247	−44.8	----	27	239	−48.7	----	25	248	−44.1	----	29	245	−44.9	----	28	242	−47.9	----
12,000	28	214	−50.0	----	14	209	−52.4	----	28	212	−52.8	----	26	205	−55.2	----	24	213	−52.0	----	28	211	−51.3	----	25	207	−52.5	----
13,000	28	183	−57.4	----	9	178	−57.2	----	24	182	−59.6	----	23	175	−59.3	----	23	182	−59.1	----	24	181	−56.9	----	22	177	−56.7	----
14,000	23	156	−64.0	----	5	152	−59.7	----	18	154	−65.9	----	17	149	−61.9	----	19	155	−64.8	----	16	154	−62.3	----	18	151	−60.8	----
15,000	17	132	−69.6	----					7	131	−69.3	----	9	126	−61.2	----	13	131	−69.5	----	8	132	−66.9	----	9	129	−62.0	----
16,000													5	107	−61.7	----	6	112	−69.8	----								

Altitude (meters) m. s. l.	Dodge City, Kans. (787 m.)				El Paso, Tex. (1,195 m.)				Ely, Nev. (1,908 m.)				Fort Worth, Tex. (211 m.)				Glasgow, Mont. (648 m.)				Grand Junction, Colo. (1,414 m.)				Great Falls, Mont. (1,128 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	30	924	19.6	54	29	881	25.8	33	30	811	13.6	43	30	990	25.8	56	30	939	12.2	58	25	857	20.2	33	29	868	13.1	50
500													30	959	24.9	56												
1,000	30	902	20.2	51									30	905	22.1	58	30	901	12.7	50								
1,500	30	851	18.4	50	29	851	24.9	33					30	854	19.0	57	30	848	10.1	51	25	848	21.2	28	29	850	11.7	46
2,000	30	802	16.1	47	29	803	21.1	35	30	802	15.0	39	30	805	15.9	54	30	798	7.0	53	25	800	18.7	26	29	800	8.3	49
2,500	30	757	13.8	42	29	758	17.1	39	30	757	13.1	38	30	759	13.6	46	30	751	3.6	56	25	755	14.4	30	29	753	4.7	54
3,000	30	712	10.4	41	29	714	13.1	44	30	712	8.9	43	30	715	10.9	43	30	706	0.4	60	25	710	10.0	36	29	708	1.1	58
4,000	30	631	3.1	42	29	633	4.8	52	30	630	1.2	49	30	634	4.4	41	30	622	−5.4	58	25	629	1.5	48	29	624	−5.7	59
5,000	30	557	−4.0	40	28	559	−1.9	45	29	555	−5.2	44	29	559	−2.3	41	30	547	−11.5	55	25	555	−6.1	56	28	548	−12.2	51
6,000	30	490	−10.7	34	27	492	−8.7	----	29	488	−11.8	----	29	492	−8.4	36	30	480	−17.8	53	24	487	−13.3	44	28	480	−18.5	46
7,000	30	430	−17.5	----	27	433	−14.9	----	29	428	−18.5	----	29	433	−14.9	----	30	419	−24.5	----	24	427	−20.0	----	28	419	−25.3	----
8,000	30	375	−24.6	----	26	378	−22.4	----	29	374	−25.6	----	28	378	−21.7	----	28	364	−31.7	----	24	372	−27.2	----	26	365	−32.0	----
9,000	29	326	−32.0	----	26	329	−29.7	----	27	326	−32.6	----	27	329	−29.1	----	28	315	−38.7	----	24	323	−35.2	----	25	316	−39.1	----
10,000	29	283	−39.0	----	25	286	−37.0	----	27	282	−40.2	----	26	286	−36.6	----	28	272	−44.6	----	24	279	−42.7	----	24	273	−45.0	----
11,000	29	244	−46.1	----	25	247	−44.3	----	27	243	−47.1	----	26	246	−44.1	----	27	234	−49.2	----	24	240	−48.0	----	24	235	−50.2	----
12,000	29	209	−52.4	----	24	212	−51.7	----	27	209	−52.3	----	26	212	−51.1	----	26	201	−51.6	----	22	206	−52.2	----	22	201	−54.3	----
13,000	25	179	−57.5	----	23	181	−58.1	----	25	179	−57.1	----	25	181	−57.4	----	23	173	−54.4	----	19	177	−55.6	----	19	172	−56.3	----
14,000	21	153	−62.2	----	18	154	−63.2	----	24	153	−61.9	----	17	154	−62.1	----	16	147	−54.2	----	13	152	−60.2	----	13	148	−58.2	----
15,000	17	130	−65.5	----	7	132	−68.8	----	15	130	−66.2	----	8	131	−67.6	----	8	126	−56.6	----	7	132	−66.3	----				
16,000	7	110	−67.1	----					7	110	−67.8	----									6	112	−70.8	----				

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidity in percent, obtained by radiosondes during September 1945*—Continued

Altitude (meters) m. s. l.	Greensboro, N. C. (273 m.)				Hatteras, N. C. (3 m.)				Havana, Cuba (51 m.)				Huntington, W. Va. (172 m.)				International Falls, Minn. (343 m.)				Jackson, Miss.[1] (97 m.)				Joliet, Ill. (178 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	29	988	20.8	90	27	1,020	24.6	86	---	---	---	---	28	999	19.2	87	30	975	10.8	84	29	1,005	23.3	82	30	996	16.3	86
500	29	962	21.9	79	27	964	22.2	80	---	---	---	---	28	962	20.9	75	30	956	11.1	79	29	960	23.5	72	30	959	17.1	75
1,000	29	908	19.1	78	27	910	19.3	78	---	---	---	---	28	908	18.5	73	30	901	8.7	76	29	906	20.6	72	30	905	14.9	71
1,500	29	857	16.1	77	27	858	16.6	75	---	---	---	---	28	856	15.8	76	30	848	6.3	75	29	855	17.1	75	30	853	12.8	67
2,000	29	808	13.0	75	27	809	13.8	73	---	---	---	---	28	807	12.8	77	30	797	4.3	67	29	806	14.1	72	30	803	10.6	60
2,500	29	761	10.2	69	27	762	11.2	66	---	---	---	---	28	760	10.4	69	30	750	2.1	63	29	760	11.8	59	30	756	8.2	58
3,000	29	717	7.5	63	26	718	8.7	60	---	---	---	---	28	716	7.8	63	30	704	0.0	59	29	715	9.5	53	30	711	5.8	51
4,000	28	634	2.4	55	23	635	3.5	50	---	---	---	---	27	634	2.8	55	30	621	−5.5	57	29	634	4.1	44	29	629	0.2	46
5,000	27	559	−3.2	50	22	561	−1.6	44	---	---	---	---	27	559	−2.6	48	29	546	−11.5	54	29	560	−2.0	47	28	555	−5.3	---
6,000	27	492	−9.2	---	21	494	−7.4	---	---	---	---	---	27	492	−8.5	47	29	479	−17.8	54	29	493	−8.4	42	28	488	−11.5	---
7,000	27	432	−15.7	---	21	434	−13.9	---	---	---	---	---	27	433	−14.6	41	29	418	−24.5	---	28	433	−14.8	---	28	428	−17.9	---
8,000	27	377	−22.6	---	20	380	−21.0	---	---	---	---	---	26	378	−21.4	---	28	364	−31.0	---	28	378	−21.8	---	28	373	−25.3	---
9,000	26	328	−30.0	---	20	331	−28.6	---	---	---	---	---	26	329	−28.4	---	28	315	−38.4	---	27	329	−28.9	---	28	324	−32.7	---
10,000	26	285	−37.5	---	19	287	−36.0	---	---	---	---	---	26	286	−36.2	---	28	272	−44.8	---	26	286	−36.0	---	27	281	−39.6	---
11,000	26	246	−45.0	---	18	248	−43.7	---	---	---	---	---	26	247	−44.0	---	28	234	−49.9	---	25	247	−43.5	---	27	242	−46.4	---
12,000	26	211	−52.5	---	15	214	−51.6	---	---	---	---	---	26	212	−51.7	---	27	200	−53.0	---	24	212	−50.5	---	26	208	−52.4	---
13,000	24	180	−59.4	---	13	182	−59.3	---	---	---	---	---	25	181	−58.5	---	25	171	−54.0	---	24	182	−57.3	---	24	178	−56.4	---
14,000	22	154	−65.3	---	13	155	−65.3	---	---	---	---	---	23	154	−63.6	---	21	147	−55.8	---	21	155	−63.2	---	17	152	−59.6	---
15,000	17	130	−68.6	---	7	132	−68.9	---	---	---	---	---	19	131	−67.1	---	15	126	−57.5	---	18	132	−67.5	---	11	129	−60.8	---
16,000	13	110	−71.5	---	---	---	---	---	---	---	---	---	9	111	−67.7	---	11	108	−57.2	---	9	112	−69.6	---	5	110	−62.6	---
17,000	8	93	−71.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Altitude (meters) m. s. l.	Lake Charles, La. (5 m.)				Lander, Wyo. (1,632 m.)				Little Rock, Ark. (79 m.)				Louisville, Ky. (165 m.)				Mazatlan, Mexico (80 m.)				Medford, Oreg. (409 m.)				Merida, Mexico (27 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	30	1,015	24.4	88	30	838	11.0	63	30	1,007	21.9	85	30	998	20.4	80	30	1,002	28.2	81	30	968	20.7	40	30	1,010	26.0	82
500	30	960	23.6	73	---	---	---	---	30	960	22.6	68	30	960	20.8	72	30	956	25.4	74	30	959	21.0	40	30	957	24.0	79
1,000	30	906	20.5	71	---	---	---	---	30	906	19.7	67	30	907	18.2	72	30	903	23.0	70	30	904	18.8	40	30	904	21.1	77
1,500	30	855	17.7	68	---	---	---	---	30	855	16.6	66	30	855	15.3	70	30	853	20.5	67	30	852	15.3	43	30	853	18.0	71
2,000	30	806	15.2	59	30	801	12.0	49	29	806	14.1	62	30	806	12.6	67	30	804	17.8	65	30	804	12.0	46	30	804	15.1	72
2,500	30	760	12.7	52	30	755	9.1	48	29	760	11.7	54	30	759	10.1	58	30	758	15.1	63	30	757	9.3	42	30	759	12.4	68
3,000	30	716	10.2	47	30	710	5.4	52	26	715	9.1	51	30	715	7.4	54	30	714	12.0	62	30	712	6.4	37	30	714	9.9	64
4,000	30	634	4.6	39	30	628	−1.8	58	29	633	3.2	47	30	632	1.9	44	30	633	4.9	67	30	630	0.8	33	30	633	4.4	65
5,000	29	560	−1.0	34	30	553	−8.3	53	29	559	−3.0	42	30	558	−3.8	41	30	560	−1.4	63	30	555	−5.4	32	30	559	−1.3	64
6,000	29	494	−7.1	32	29	485	−15.0	49	29	492	−8.6	35	30	491	−9.8	---	27	493	−7.4	67	30	488	−11.6	---	30	492	−7.1	63
7,000	29	434	−13.5	34	29	424	−21.8	---	28	432	−15.0	39	30	431	−16.1	---	27	433	−13.5	58	30	428	−18.8	---	29	433	−13.4	67
8,000	29	380	−20.3	---	29	370	−29.0	---	28	378	−22.1	---	29	376	−23.5	---	27	379	−20.1	55	29	374	−26.6	---	29	378	−20.1	---
9,000	29	331	−27.5	---	29	320	−36.5	---	27	329	−29.3	---	29	327	−30.5	---	25	330	−27.6	---	27	324	−34.6	---	28	330	−27.4	---
10,000	29	288	−35.0	---	29	277	−43.4	---	27	286	−36.4	---	28	284	−37.9	---	24	287	−35.1	---	27	280	−42.3	---	27	287	−35.2	---
11,000	28	248	−42.7	---	29	238	−49.2	---	27	247	−43.3	---	28	244	−45.4	---	23	248	−43.3	---	27	241	−49.0	---	27	247	−43.5	---
12,000	28	214	−50.2	---	29	204	−53.5	---	27	212	−49.9	---	28	210	−52.5	---	22	213	−51.4	---	26	207	−54.0	---	27	213	−52.1	---
13,000	28	183	−57.4	---	27	175	−56.2	---	25	182	−56.0	---	25	180	−58.5	---	19	182	−59.3	---	24	177	−57.7	---	26	182	−60.5	---
14,000	25	158	−63.5	---	22	150	−58.8	---	15	156	−61.0	---	19	153	−63.2	---	17	154	−66.3	---	21	151	−60.1	---	21	154	−68.8	---
15,000	17	132	−69.1	---	10	128	−61.5	---	7	132	−65.7	---	10	130	−65.9	---	10	131	−72.4	---	13	128	−63.0	---	6	129	−75.9	---
16,000	---	---	---	---	6	110	−65.0	---	6	112	−67.7	---	5	111	−68.1	---	---	---	---	---	5	110	−61.0	---	---	---	---	---

Altitude (meters) m. s. l.	Miami, Fla. (4 m.)				Nashville, Tenn. (180 m.)				North Platte, Nebr. (849 m.)				Oakland, Calif. (2 m.)				Ogden, Utah (1,355 m.)				Oklahoma City, Okla. (391 m.)				Omaha, Nebr. (308 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	30	1,016	25.7	86	30	996	22.9	74	30	918	15.1	72	30	1,013	17.6	74	30	866	14.9	51	29	969	21.7	64	30	980	18.6	70
500	30	961	23.4	82	30	961	22.4	70	---	---	---	---	30	956	19.6	51	---	---	---	---	29	957	22.5	60	30	958	18.7	64
1,000	30	907	20.8	77	30	907	19.6	71	30	902	17.0	57	30	902	21.1	31	---	---	---	---	29	904	21.1	55	30	904	16.5	60
1,500	30	856	18.1	74	30	856	16.2	74	30	850	16.1	50	30	851	19.1	27	30	851	16.6	42	29	853	19.1	52	30	852	14.2	57
2,000	30	807	15.4	74	30	806	13.2	70	30	801	13.2	47	30	802	16.3	25	30	802	13.8	39	29	804	16.2	53	30	802	11.8	56
2,500	30	761	13.0	71	30	760	11.1	58	30	755	10.3	44	30	756	13.6	24	30	756	10.1	44	29	758	13.4	51	30	756	9.6	49
3,000	30	716	10.4	69	30	715	8.6	51	30	711	7.2	46	30	712	10.5	25	30	711	6.3	47	29	714	10.3	51	30	711	6.8	49
4,000	29	635	5.2	65	30	634	3.2	44	30	629	0.6	54	29	631	3.7	27	30	629	−0.7	50	28	633	3.7	49	30	629	0.6	47
5,000	29	562	−0.4	60	29	559	−2.8	46	30	554	−5.7	47	29	557	−3.1	---	30	554	−7.1	49	28	558	−3.0	45	30	555	−5.7	41
6,000	27	495	−5.9	56	29	492	−8.8	37	30	487	−12.1	41	29	490	−9.5	---	30	486	−13.9	51	28	491	−9.4	43	30	488	−12.1	32
7,000	25	435	−11.8	50	28	432	−15.4	---	30	427	−19.3	---	29	430	−16.4	---	30	426	−20.6	---	27	432	−15.8	---	30	427	−19.3	---
8,000	25	381	−18.4	50	28	378	−22.2	---	29	372	−26.8	---	29	376	−24.4	---	30	371	−27.8	---	26	377	−23.0	---	30	373	−26.2	---
9,000	25	332	−25.7	---	27	329	−29.5	---	28	323	−34.5	---	29	327	−32.2	---	29	322	−35.3	---	26	328	−29.9	---	30	324	−33.7	---
10,000	24	289	−33.5	---	27	285	−36.8	---	28	279	−42.3	---	28	283	−39.7	---	29	279	−42.8	---	26	284	−37.0	---	30	280	−41.0	---
11,000	24	250	−41.5	---	26	246	−44.4	---	27	241	−48.5	---	27	244	−46.5	---	28	239	−49.4	---	26	246	−43.9	---	30	242	−47.6	---
12,000	24	215	−49.7	---	26	212	−51.9	---	26	206	−53.6	---	27	209	−52.2	---	26	205	−53.4	---	26	211	−50.6	---	30	207	−53.0	---
13,000	23	184	−57.9	---	24	181	−58.6	---	24	176	−56.9	---	25	179	−56.6	---	21	176	−56.8	---	21	181	−55.7	---	26	177	−57.2	---
14,000	19	157	−64.8	---	17	155	−64.1	---	18	150	−60.2	---	18	154	−60.4	---	15	149	−59.9	---	19	155	−60.4	---	14	153	−60.4	---
15,000	9	133	−70.8	---	8	132	−67.1	---	9	128	−62.9	---	10	131	−62.9	---	9	125	−59.4	---	14	132	−64.6	---	8	130	−59.7	---
16,000	---	---	---	---	---	---	---	---	5	110	−66.6	---	6	111	−63.3	---	7	106	−59.9	---	8	112	−67.3	---	---	---	---	---
17,000	---	---	---	---	---	---	---	---	---	---	---	---	5	95	−63.2	---	5	90	−59.4	---	5	95	−67.9	---	---	---	---	---

See footnotes at end of table

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidity in percent, obtained by radiosondes during September 1945*—Continued

Altitude (meters) m. s. l.	Phoenix, Ariz. (339 m.)				Pittsburgh, Pa. (382 m.)				Portland, Maine (20 m.)				Rapid City, S. Dak. (981 m.)				St. Louis, Mo. (171 m.)				St. Paul, Minn. (225 m.)				San Antonio, Tex. (240 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	30	969	28.4	38	30	975	18.2	83	30	1,018	14.0	89	30	904	13.2	61	30	996	20.0	79	30	990	14.9	76	30	986	26.1	61
500	30	953	31.9	26	30	963	18.2	80	30	962	15.6	73					30	959	19.7	75	30	958	14.5	69	30	957	25.5	62
1,000	30	900	28.7	26	30	908	16.2	74	30	907	14.0	69	30	902	13.7	60	30	905	17.6	70	30	903	11.7	70	30	904	22.5	64
1,500	30	851	24.7	28	30	856	14.0	72	30	854	12.0	63	30	850	14.0	48	29	854	15.9	63	30	850	9.4	63	30	854	19.2	66
2,000	30	803	20.3	32	30	806	11.6	69	30	805	10.2	57	30	800	10.7	49	29	804	13.6	56	30	800	7.7	56	30	805	16.3	62
2,500	30	757	16.1	36	30	759	9.0	64	30	758	8.0	53	30	754	7.2	50	29	758	11.1	54	30	753	5.6	51	30	759	13.7	55
3,000	30	714	11.9	37	30	714	6.7	56	30	713	6.1	45	30	709	3.9	51	29	713	7.8	57	30	708	3.1	51	30	715	11.5	42
4,000	30	632	3.9	41	29	632	1.5	48	30	631	0.9	38	30	626	−2.7	52	29	632	1.5	53	29	626	−2.2	48	30	634	5.9	33
5,000	30	558	−2.7	35	28	558	−3.7	42	30	556	−4.8	41	29	551	−9.5	52	28	557	−4.7	55	29	551	−8.3	44	30	560	−0.5	31
6,000	30	491	−9.2	31	28	490	−9.8	41	30	489	−10.9	36	28	483	−16.1	45	28	490	−10.6	45	29	483	−15.0	----	30	494	−6.5	30
7,000	30	432	−15.8	----	28	431	−16.4	45	30	429	−17.1	38	26	423	−22.6	----	28	430	−17.3	----	29	423	−21.7	----	30	434	−13.2	----
8,000	30	377	−23.4	----	28	377	−23.0	----	30	375	−24.2	----	26	368	−29.7	----	28	375	−24.4	----	29	369	−28.6	----	29	379	−20.4	----
9,000	30	328	−31.1	----	28	328	−30.2	----	30	325	−31.5	----	26	319	−36.9	----	27	326	−31.6	----	29	320	−35.8	----	28	330	−27.4	----
10,000	30	284	−38.6	----	28	284	−37.4	----	30	282	−39.2	----	26	276	−43.9	----	24	283	−38.5	----	29	276	−43.2	----	27	287	−34.9	----
11,000	30	245	−45.8	----	28	245	−44.7	----	29	243	−47.0	----	26	237	−49.0	----	23	244	−45.5	----	29	238	−49.1	----	26	248	−42.1	----
12,000	30	210	−52.2	----	28	210	−51.5	----	29	208	−54.1	----	24	204	−52.6	----	22	210	−51.9	----	26	204	−53.9	----	26	214	−49.5	----
13,000	28	180	−57.7	----	27	180	−57.4	----	23	178	−59.6	----	20	175	−56.2	----	22	179	−57.4	----	22	175	−56.4	----	26	183	−56.4	----
14,000	25	154	−62.2	----	19	153	−61.8	----	22	152	−63.1	----	13	150	−59.1	----	18	153	−62.1	----	20	149	−58.1	----	22	156	−62.4	----
15,000	20	131	−66.9	----	18	130	−63.9	----	13	130	−65.5	----	7	129	−61.3	----	11	130	−65.7	----	16	127	−59.5	----	16	132	−68.1	----
16,000	10	110	−69.8	----	13	112	−64.7	----	6	110	−66.5	----					6	110	−67.2	----	13	108	−61.4	----	9	112	−71.0	----
17,000					6	95	−64.1	----													5	93	−63.5	----				

Altitude (meters) m. s. l.	San Juan, P. R. (15 m.)				Santa Maria, Calif. (71 m.)				Sault Ste. Marie, Mich. (221 m.)				Spokane, Wash. (598 m.)				Swan Island, W. I.[2] (10 m.)				Tacubaya, Mexico (2,306 m.)				Tampa, Fla. (3 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	29	1,013	25.9	85	30	1,005	15.2	83	30	992	10.9	91	30	946	14.1	61	----	----	----	----	30	774	15.6	74	30	1,017	25.6	87
500	29	959	22.8	83	30	956	18.3	67	30	960	12.0	81					----	----	----	----					30	961	23.4	80
1,000	29	905	19.8	80	30	902	20.4	44	30	904	9.9	69	30	902	14.4	53	----	----	----	----	----	----	----	----	30	908	20.8	75
1,500	29	854	16.9	77	30	851	19.1	41	30	851	8.3	57	30	850	10.7	55	----	----	----	----	----	----	----	----	30	856	18.0	73
2,000	29	805	14.4	71	30	802	16.2	37	30	800	6.6	50	30	800	7.0	57	----	----	----	----	----	----	----	----	30	807	15.1	71
2,500	29	759	12.0	63	30	756	13.3	31	30	753	4.4	48	30	753	3.6	60	----	----	----	----	30	757	14.4	73	30	761	12.5	65
3,000	29	715	9.3	57	30	712	10.5	32	30	708	1.7	51	30	707	0.3	62	----	----	----	----	30	713	10.7	75	30	717	9.8	64
4,000	29	633	3.6	57	30	631	4.2	32	29	625	−3.0	49	30	624	−5.0	57	----	----	----	----	30	632	4.1	83	29	635	4.2	54
5,000	29	559	−2.0	52	30	557	−2.5	----	28	550	−8.7	53	30	548	−11.3	55	----	----	----	----	30	558	−2.0	84	29	561	−1.5	56
6,000	28	492	−7.9	60	30	490	−9.1	----	28	483	−14.4	45	30	481	−17.5	52	----	----	----	----	29	492	−7.4	78	29	494	−7.6	49
7,000	27	433	−14.3	66	30	430	−15.7	----	28	423	−21.0	----	30	420	−24.1	----	----	----	----	----	29	432	−13.2	72	29	434	−13.8	50
8,000	27	378	−21.2	----	29	376	−23.3	----	28	368	−28.1	----	30	366	−31.3	----	----	----	----	----	28	378	−19.8	69	27	379	−20.6	46
9,000	27	330	−28.5	----	28	327	−31.1	----	27	320	−35.7	----	30	316	−38.8	----	----	----	----	----	26	329	−26.7	----	27	331	−27.8	----
10,000	26	286	−36.3	----	28	284	−38.5	----	26	276	−43.4	----	30	273	−45.7	----	----	----	----	----	26	287	−34.1	----	26	287	−35.5	----
11,000	26	247	−44.6	----	27	244	−45.7	----	25	238	−49.0	----	29	235	−50.7	----	----	----	----	----	23	248	−42.3	----	26	248	−43.8	----
12,000	26	212	−52.9	----	27	210	−51.9	----	25	204	−54.0	----	28	201	−53.3	----	----	----	----	----	23	213	−50.6	----	26	213	−52.2	----
13,000	23	181	−60.0	----	26	179	−57.3	----	22	174	−56.3	----	21	173	−54.9	----	----	----	----	----	20	182	−58.9	----	26	182	−60.2	----
14,000	18	154	−65.8	----	25	153	−61.6	----	22	148	−58.6	----	17	148	−56.3	----	----	----	----	----	10	155	−66.0	----	23	155	−67.1	----
15,000	9	132	−69.7	----	21	130	−65.5	----	15	127	−59.5	----	9	127	−56.6	----	----	----	----	----	----	----	----	----	17	131	−72.6	----
16,000	6	111	−72.4	----	16	111	−68.3	----	11	108	−59.0	----					----	----	----	----	----	----	----	----	11	110	−73.2	----
17,000					6	94	−69.4	----																				

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL

Altitude (meters) m. s. l.	Tatoosh Island, Wash. (31 m.)				Toledo, Ohio (191 m.)				Washington, D. C. (25 m.)				Altitude (meters) m. s. l.	Tatoosh Island, Wash. (31 m.)				Toledo, Ohio (191 m.)				Washington, D. C. (25 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity		Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	30	1,015	11.0	93	30	996	16.9	79	30	1,017	21.4	82	8,000	28	367	−30.7	----	29	373	−24.7	----	30	378	−22.8	----
500	30	960	11.4	78	30	961	17.3	73	30	963	19.7	75	9,000	27	318	−38.2	----	28	325	−31.9	----	30	329	−28.8	----
1,000	30	904	10.2	68	30	906	14.9	71	30	909	17.1	74	10,000	27	274	−44.8	----	28	282	−39.2	----	30	285	−37.3	----
1,500	30	851	8.2	58	30	854	12.6	63	30	857	14.9	74	11,000	25	236	−50.3	----	27	242	−46.0	----	30	246	−45.2	----
2,000	30	801	6.2	52	30	804	10.3	59	30	808	12.6	69	12,000	23	202	−53.6	----	27	208	−52.5	----	30	211	−52.9	----
2,500	30	753	3.8	52	30	757	8.1	55	30	761	10.1	66	13,000	19	173	−55.8	----	25	178	−57.6	----	28	180	−59.3	----
3,000	30	708	1.5	44	30	713	5.6	52	30	716	7.5	60	14,000	17	148	−56.8	----	23	152	−61.3	----	24	154	−64.4	----
4,000	30	625	−4.1	44	30	630	0.4	46	30	634	2.2	53	15,000	8	126	−59.8	----	17	130	−62.3	----	12	131	−66.4	----
5,000	30	550	−9.7	44	30	556	−5.1	45	30	559	−3.2	50	16,000	----	----	----	----	10	110	−62.8	----	7	111	−67.5	----
6,000	29	482	−16.3	42	29	488	−11.5	44	30	492	−9.1	44	17,000	----	----	----	----	5	95	−65.1	----	6	93	−66.7	----
7,000	28	421	−23.1	----	29	428	−17.9	----	30	432	−15.5	44																

[1] Raobs discontinued Sept. 30, 1945.
[2] Data not received.

NOTE.—All observations scheduled between 10 p. m. and midnight, E. S. T. (0300 and 0500, G. C. T.), except at Mazatlan and Merida, where they are taken near 9 p. m. E. S. T. (0200, G. C. T.)

"Number of observations" refers to pressure only. (In a few cases temperature or humidity data may be missing for one or more levels of some observations.) Relative humidity data are not published for levels having a corresponding mean temperature below −20° C.

All relative humidity observations are obtained by electric hygrometer and have been adjusted to compensate for the values occurring below the operating range of the humidity element. For explanation of the adjustment see article entitled "Curve Method for Obtaining Monthly Means of Relative Humidity," p. 241, MONTHLY WEATHER REVIEW, December 1944.

None of the means included in these tables are based on less than 15 surface or 5 standard level observations.

Raob data for Havana, Cuba, will appear in a later issue.

TABLE 2.—*Free-air resultant winds based on pilot-balloon observations made near 5 p. m., E. S. T. (2200 G. C. T.), during September 1945. Directions given in degrees from north (N=360°, E=90°, S=180°, W=270°). Velocities in meters per second*

Altitude (meters) m. s. l.	Abilene, Tex. (538 m.)			Albuquerque, N. Mex (1,630 m.)			Atlanta, Ga. (299 m.)			Billings, Mont. (1,095 m.)			Bismarck, N. Dak. (512 m.)			Boise, Idaho (868 m.)			Brownsville, Tex. (7 m.)			Buffalo, N. Y. (220 m.)			Burlington, Vt. (132 m.)			Charleston, S. C. (16 m.)			Cincinnati, Ohio (152 m.)			Denver, Colo. (1,627 m.)			El Paso, Tex. (1,196 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	28	155	3.6	30	217	2.5	28	143	0.9	30	289	2.0	30	257	2.1	30	325	3.8	30	110	4.0	29	252	2.1	30	195	1.9	28	155	1.3	30	131	0.4	28	30	1.7	30	232	2.5
500							28	126	1.1										30	116	5.1	29	247	4.0	30	201	4.9	28	147	3.4	30	217	1.7						
1,000	28	179	4.9				28	149	1.2				30	252	2.3	30	321	4.3	27	136	4.9	27	236	6.3	27	224	6.3	26	153	2.6	28	211	2.5						
1,500	28	182	5.2				27	153	0.8	30	271	4.9	29	259	3.7	30	314	4.5	25	111	2.5	23	240	6.8	27	248	7.3	25	138	1.6	27	213	4.3				30	266	2.4
2,000	28	182	5.0	30	214	2.9	26	235	2.5	30	274	5.5	24	260	7.7	30	295	4.3	25	125	2.7	20	244	7.5	25	265	8.6	24	262	0.2	24	229	5.8	28	14	1.6	30	223	2.0
2,500	26	186	4.5	30	228	3.0	23	237	3.2	29	277	6.7	21	262	9.1	29	292	4.2	23	121	2.1	16	251	5.9	19	268	8.2	23	3	0.9	16	244	7.2	27	314	0.6	30	232	1.8
3,000	24	212	2.1	30	252	3.9	21	235	2.3	27	273	8.2	20	259	10.8	28	290	5.3	23	115	2.3	15	254	6.7	15	276	9.8	22	351	0.8	12	249	5.6	27	272	2.5	29	230	2.4
4,000	21	286	3.3	29	270	6.9	15	267	3.6	23	282	11.0	16	266	11.8	26	275	7.5	22	78	2.1	12	271	5.8	11	281	11.6	21	303	0.8	10	273	5.6	26	266	7.0	23	233	4.9
5,000	16	305	5.6	29	271	8.7	10	263	2.8	18	281	11.7	16	255	13.5	24	285	9.1	22	110	1.7	10	237	6.1	10	276	15.3	14	296	2.5				21	265	12.0			
6,000	15	312	5.7	28	265	8.5				16	292	12.6	12	253	16.2	23	290	11.4	22	89	1.5							13	297	2.0				18	262	14.8			
8,000	12	291	7.4	26	259	13.0				14	287	17.2				20	300	13.7	17	258	1.1													13	260	17.8			
10,000				24	260	17.5										15	284	17.4	11	263	4.0													11	256	22.4			
12,000				20	263	16.2																																	
14,000				16	283	14.1																																	

Altitude (meters) m. s. l.	Ely, Nev. (1,910 m.)			Grand Junction, Colo. (1,413 m.)			Greensboro, N. C. (271 m.)			Havre, Mont. (767 m.)			Jacksonville, Fla. (16 m.)			Joliet, Ill. (178 m.)			Las Vegas, Nev. (573 m.)			Little Rock, Ark. (88 m.)			Medford, Oreg. (410 m.)			Miami, Fla. (12 m.)			Mobile, Ala. (66 m.)			Nashville, Tenn. (194 m.)			New York, N. Y. (15 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	30	319	1.8	27	313	2.4	25	200	0.6	27	278	3.0	29	100	3.3	26	140	1.5	30	198	1.3	29	201	1.1	30	319	1.5	28	107	3.7	27	165	1.4	30	209	1.8	27	195	1.6
500							25	198	1.2				29	111	4.4	26	160	2.1				29	225	1.4	30	325	1.4	28	113	6.5	27	156	2.1	30	206	2.3	27	235	2.3
1,000							25	210	2.5	27	280	4.5	28	116	3.2	23	188	3.2	30	206	2.2	26	223	2.2	30	326	1.9	27	116	6.3	25	118	1.9	30	213	2.3	26	259	3.2
1,500				27	308	2.9	23	239	2.2	27	278	5.3	27	140	1.8	19	238	4.4	30	209	2.4	25	238	2.5	30	310	1.4	26	104	5.8	23	108	1.9	29	206	3.2	26	249	3.9
2,000	30	306	1.8	27	294	3.9	21	261	2.3	24	278	6.0	25	117	1.7	15	259	4.1	30	225	2.6	22	261	2.1	30	287	1.0	24	102	4.7	17	204	0.7	27	206	4.2	26	265	6.2
2,500	30	280	2.5	27	277	3.7	19	258	2.9	19	276	7.7	23	123	2.4	14	272	6.8	30	235	3.6	20	210	1.3	28	328	1.3	24	92	4.9	15	210	1.3	27	210	4.6	23	265	6.4
3,000	30	265	3.6	27	265	5.6	17	265	4.4	13	276	7.5	19	142	1.8	12	275	7.1	30	240	4.8	18	246	0.6	27	318	3.0	22	98	5.3	13	225	1.4	23	232	4.4	19	261	7.0
4,000	28	248	4.1	25	247	6.9	16	287	5.5				17	211	1.5				30	259	4.7	14	306	1.4	23	312	6.0	16	110	4.7	11	277	2.2	18	228	7.1	13	263	5.6
5,000	24	275	6.5	22	257	7.8	16	276	6.5				14	236	3.4				29	265	4.9	11	254	7.6	20	320	6.8	12	110	4.4				14	254	8.1	11	270	6.7
6,000	22	285	9.6	18	276	10.7	15	273	6.8				13	236	3.7				29	280	6.1				19	319	6.5	10	108	4.5				12	260	9.2			
8,000	18	291	10.4	14	273	12.7	13	246	6.6										24	289	8.0				11	283	6.5												
10,000	16	298	16.1				12	265	9.9										19	297	12.8																		
12,000																			15	269	16.6																		
14,000																			11	269	14.9																		

Altitude (meters) m. s. l.	Oakland, Calif. (8 m.)			Oklahoma City, Okla. (396 m.)			Omaha, Nebr. (306 m.)			Phoenix, Ariz. (338 m.)			Rapid City, S. Dak. (982 m.)			St. Louis, Mo. (181 m.)			St. Paul, Minn. (225 m.)			San Antonio, Tex. (240 m.)			San Diego, Calif. (15 m.)			Sault Ste. Marie, Mich. (225 m.)			Seattle, Wash. (116 m.)			Spokane, Wash. (603 m.)			Washington, D. C. (24 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	30	284	5.1	26	173	4.7	30	87	0.7	30	246	1.0	29	338	1.8	24	133	1.3	30	190	1.4	30	140	2.8	30	289	4.2	27	304	2.1	27	270	1.6	30	251	2.0	29	156	1.8
500	30	299	4.1	26	171	5.2	30	154	0.7	30	242	1.8				24	168	2.5	30	205	1.7	30	144	3.5	30	290	3.7	27	282	2.2	27	296	1.2				29	194	1.9
1,000	29	320	2.4	26	176	6.0	27	179	2.4	30	242	2.9	29	338	1.9	23	219	3.8	29	214	2.7	29	148	4.3	28	268	1.4	25	247	3.3	26	347	0.6	30	252	2.8	28	240	2.3
1,500	29	343	2.4	25	189	7.3	26	209	4.4	30	232	2.8	29	302	2.3	22	226	5.6	25	215	3.9	28	149	4.1	27	186	1.2	24	260	5.1	22	208	0.8	30	248	3.9	25	250	2.7
2,000	29	338	2.0	25	198	7.9	24	220	6.7	30	215	2.1	28	273	3.7	16	276	4.5	21	227	4.9	28	160	3.0	25	169	2.2	20	268	7.0	18	238	1.4	25	252	5.3	22	260	4.8
2,500	29	347	1.9	25	216	7.2	24	234	7.9	30	211	2.5	27	266	5.4	15	296	5.4	19	250	4.7	27	161	2.3	24	171	2.4	17	272	8.8	16	289	2.0	22	270	6.0	21	265	7.6
3,000	29	338	2.1	24	235	6.8	22	235	9.3	30	225	2.7	23	272	6.8	14	284	6.5	15	255	4.7	23	98	0.5	24	174	2.7	16	269	9.1	15	290	3.0	19	263	5.1	20	262	9.1
4,000	29	324	2.8	21	261	8.9	22	254	9.9	30	236	3.6	22	272	10.3	14	289	7.9	13	275	8.6	20	22	1.7	21	234	2.3	14	268	11.8	13	295	6.9	18	274	6.4	14	265	11.3
5,000	28	304	4.8	17	268	9.4	18	262	12.0	29	238	5.0	21	269	11.6	13	289	11.0	10	281	10.9	20	311	2.3	20	268	3.7	13	264	13.8	13	292	8.9	15	309	8.0	10	271	8.9
6,000	26	305	6.0	15	286	8.1	14	289	11.0	27	233	6.6	17	269	13.3	11	297	13.4				16	277	3.2	20	275	5.8	12	268	16.8	11	287	11.0	13	294	10.3			
8,000	16	279	5.8							25	259	6.7	11	255	19.6										17	284	6.2												
10,000	13	264	10.7							24	273	11.5													13	256	11.6												
12,000	11	263	12.0							20	269	11.9													11	260	17.1												
14,000										13	253	11.2																										
16,000										12	256	9.1																										

TABLE 3.—*Maximum free-air wind velocities (m. p. s.) for different sections of the United States based on pilot balloon observations during September 1945*

Section	Surface to 2,500 meters (m. s. l.)					Above 2,500 to 5,000 meters (m. s. l.)					Above 5,000 meters (m. s. l.)				
	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station
Northeast [1]	33.5	WSW.	2,482	15	Portland, Maine	50.8	NW.	4,783	17	Caribou, Maine	79.2	WNW.	16,571	6	Philipsburg, Pa.
East-Central [2]	30.0	SSW.	2,500	14	Chattanooga, Tenn.	32.5	SSW.	2,628	14	Chattanooga, Tenn.	39.6	W.	13,975	19	Lynchburg, Va.
Southeast [3]	28.6	E.	682	15	Miami, Fla.	36.0	SSW.	2,988	14	Birmingham, Ala.	33.8	NNW.	10,618	2	Birmingham, Ala.
North-Central [4]	48.8	WSW.	2,472	23	Williston, N. Dak.	42.0	WSW.	5,000	27	International Falls, Minn.	60.0	W.	13,900	29	Sault Ste. Marie, Mich.
Central [5]	36.3	S.	1,420	16	Wichita, Kans.	39.0	WNW.	4,000	9	North Platte, Nebr.	68.8	WNW.	16,818	3	Goodland, Kans.
South-Central [6]	34.0	S.	1,008	19	Oklahoma City, Okla.	29.0	NNW.	3,304	14	Waco, Texas	62.0	WSW.	13,256	25	Big Spring, Tex.
Northwest [7]	32.5	NNW.	2,498	17	Tatoosh Is., Wash.	42.2	NW.	4,292	17	Burns, Oreg.	66.0	W.	13,386	9	Portland, Oreg.
West-Central [8]	47.0	S.	2,464	21	Salt Lake City, Utah	46.6	WNW.	3,407	16	Rock Springs, Wyo.	64.6	SW.	9,388	22	Sheridan, Wyo.
Southwest [9]	31.0	S.	1,720	16	Roswell, N. Mex.	37.8	SW.	3,873	21	Las Vegas, Nev.	62.0	WNW.	10,065	29	Tucson, Ariz.

[1] Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, and northern Ohio.
[2] Delaware, Maryland, Virginia, West Virginia, southern Ohio, Kentucky, eastern Tennessee, and North Carolina.
[3] South Carolina, Georgia, Florida, and Alabama.
[4] Michigan, Wisconsin, Minnesota, North Dakota, and South Dakota.
[5] Indiana, Illinois, Iowa, Nebraska, Kansas, and Missouri.
[6] Mississippi, Arkansas, Louisiana, Oklahoma, Texas, (except El Paso), and western Tennessee.
[7] Montana, Idaho, Washington, and Oregon.
[8] Wyoming, Colorado, Utah, northern Nevada, and northern California.
[9] Southern California, southern Nevada, Arizona, New Mexico, and extreme west Texas.

RIVER STAGES AND FLOODS FOR SEPTEMBER 1945

By BENNETT SWENSON

The month of September was noteworthy for its excess of precipitation over the entire country, except for a block of states from Texas west-northwestward to California. The monthly totals were the greatest of record in Missouri, Oklahoma, and West Virginia, while in several other states it was the wettest September in the last 10 to 20 years. Arkansas had the largest total since 1913, and the second greatest. Rainfall was decidedly deficient in California, Arizona, and New Mexico, where the percentages of normal were only 28, 20, and 57, respectively.

The excessive precipitation resulted in record-breaking floods in eastern areas of North and South Carolina and excessive but not extreme flooding in tributary streams in the middle Arkansas and Red River basins. Light to moderately high overflows occurred in some of the streams of Virginia, West Virginia, and eastern Pennsylvania.

Atlantic Slope drainage.—Marked rises occurred in all of the streams from Florida to New England as the result of the excessive precipitation. However, except in North and South Carolina, where previous flood records were broken in the Pee Dee, Cape Fear, and Neuse Rivers, the rainfall was favorably distributed so that extreme flood stages were not general. The Cape Fear River reached a crest of 68.9 feet at Fayettesville, N. C., on September 21, compared to an estimated stage of 68.0 feet in the flood of August 1908. At Cheraw, S. C., the Pee Dee River rose to 49.4 feet on September 19, exceeding the previous record of 47.2 feet for August 1908. A summary of the flood stages of the streams in the Carolinas is given in the table below:

TABLE 1.—*Summary of Provisional Stages of Streams in the Carolinas for Flood of September 1945*

River and station	Flood crest September 1945		Previous maximum flood of record	
	Crest	*Date*	*Stage*	*Date*
Roanoke River:				
Weldon, N. C.	48.8	22	58.0	Aug. 1940
Williamston, N. C.	15.0	26	20.5	Aug. 1940
Tar:				
Rocky Mount, N. C.	13.5	22	15.4	July 1919
Tarboro, N. C.	27.1	24	33.2	July 1919
Greenville, N. C.	19.2	25–26	24.5	July 1919
Neuse:				
Neuse, N. C.	26.0	20	24.8	July 1919
Smithfield, N. C.	26.0	20	26.5	Oct. 1929
Goldsboro, N. C.	26.7	23	25.3	Apr. 1936
Kinston, N. C.	22.4	27	20.9	Apr. 1936
Haw:				
Moncure, N. C.	39.0	18	34.3	Aug. 1908
Cape Fear:				
Fayetteville, N. C.	68.9	21	68.0	Aug. 1908
Elizabethtown, N. C.	43.2	23	39.1	Sept. 1928
Lynches:				
Effingham, S. C.	21.2	22	20.0	Aug. 1908
Pee Dee:				
Cheraw, S. C.	49.4	19	47.2	Aug. 1908
Mars Bluff Bridge, S. C.	31.3	22	29.6	Sept. 1928
Broad:				
Blairs, S. C.	28.8	19	40.0	Aug. 1928
Catawba:				
Catawba, N. C.	24.6	18	35.0	Aug. 1940
Wateree:				
Camden, S. C.	33.9	18	40.4	July 1916

In Maine, rainfall was slightly excessive for the first time since June. Reservoirs were almost full, and river flow was ample.

The rainfall averaged near normal over the Merrimack River basin, with upper portions of the basin receiving amounts well in excess of normal and central and lower portions considerably less than normal. With ample rainfall in the headwaters, hydroelectric run-off requirements kept up to a fairly good level.

Brief floods occurred in the Schuylkill River at Philadelphia, the Chenango River at Sherburne, N. Y., and in the Susquehanna River at Oneonta, N. Y., as the result of heavy rains on September 18. Overflows were light at these points.

Rains accompanying the tropical disturbance of September 17–18, were moderately heavy over the Potomac Basin, with the heaviest amounts over the upper Shenandoah, where 2-day totals of 4 and 5 inches were observed. High floods occurred in the South River at Waynesboro, Va., and moderate flooding in the entire Shenandoah Basin. The remainder of the Potomac Basin was generally below flood stage except in portions of the South Branch in West Virginia and the main Potomac from Harpers Ferry, W. Va., to Washington, D. C., where some overflow of lowlands occurred.

A series of showers beginning on September 13, and culminating in heavy rains on September 17, resulted in rises in the James River. Flooding, mostly light to moderate, was confined to the lower portion from Bremo Bluff, Va., downstream.

A cold front moving into the western and central portions of the Carolinas on September 14 was attended and preceded by heavy rains. The front moved very slowly eastward, becoming nearly stationary near the coast on the morning of the 17th, with moderate to heavy rains continuing over the interior and extending to the coast. On September 17, a tropical disturbance crossed the South Carolina coast line southeast of Charleston and moved slowly northward across the central Carolinas. While much diminished in intensity, the hurricane caused excessive rains from central and eastern South Carolina northward into southern Virginia.

The earlier rains resulting from the slow-moving cold front were by themselves sufficient to cause floods. The rains attending the passage of the hurricane fell on rain-soaked ground and drained into rivers which were already at flood stage, causing major floods in all rivers from central South Carolina northeastward through North Carolina. Several stations in the upper Cape Fear River basin and in eastern South Carolina reported 5-day totals of more than 12 inches. The excessive run-off and unusually high flooding resulted in considerable crop and property damage.

The rainfall in western South Carolina decreased to less than 2 inches, and the Saluda River just reached flood stage. The Congaree and Wateree Rivers were in moderately high flood. The Roanoke River did not reach extreme flood except that the Dan River at Danville, Va., with a crest stage of 21.3 feet on September 19, exceeded the August 1940 flood by 0.1 foot.

Upper Mississippi basin.—Generally stream flow was above normal, but no overflows occurred except in the Meramec River where a stage 2.5 feet above the flood level was recorded at Pacific, Mo., on September 28. This overflow resulted from a series of heavy rains on September 21, 24–25, and 27–28.

Ohio Basin.— The Ohio River was in pool during the first half of the month, but heavy rains over the basin during the second decade caused the dams to be lowered. Open river conditions prevailed the remainder of the month. The highest stage reached at Cairo, Ill., was 28.1 feet on September 30, which has been exceeded only in three previous years during September.

In the drainage area above Pittsburgh, heavy rains in September caused moderate to high stages during most of the last half of the month. The only station reaching flood stage was Clarksburg, W. Va., on the West Fork

River. At Clarksburg, 12.55 inches of rain occurred during the month. Three stations in the vicinity of Pittsburgh reported monthly rainfall in excess of 10 inches.

On the afternoon and evening of September 23, very heavy local precipitation in Pleasants and Tyler Counties, W. Va., and eastern Washington County, Ohio, produced severe flash floods in several small streams. The greatest damage occurred at Wick, W. Va., where Rush Fork and Walnut Run enter Sugar Creek. The entire town was flooded. Middle Island Creek at Middlebourne, W. Va., rose rapidly, and at its crest, the water was 7 feet deep in the streets. Many homes and buildings were washed away, and considerable damage was done to crops. Rainfall records in the vicinity are as follows: Bens Run, 2.09 inches (total for storm); St. Marys, 4.57 inches in less than 12 hours; Middlebourne, 4.09 inches in less than 24 hours, 3.19 inches in 12 hours, and 1.83 inches in 1 hour.

Excessive rains during the period September 13–19 in the upper New River basin in Virginia and West Virginia produced moderately high flood stages. Rainfall during this period ranged from 4 to over 9 inches in the basin above Hinton, W. Va. About half of this occurred on September 17–18 in connection with the tropical disturbance that moved slowly northward through central North Carolina.

Arkansas, White, and Red basins.—Heavy rains during the last week of the month in southern Kansas, most of Oklahoma and Arkansas, and southern Missouri resulted in extensive flooding. Rivers were generally rising at the close of the month, and although in high flood, no records were in prospect except for near record stages at some points in Oklahoma. The principal streams in flood were the Little Arkansas, Walnut, Cimarron, Verdigris, Neosho, Canadian, Arkansas, and Washita Rivers. Flood stages in the Arkansas River extended from Arkansas City, Kans. to Dardanelle, Ark.

FLOOD STAGE REPORT FOR SEPTEMBER 1945

[All dates in September unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest [1]	
		From—	To—	Stage	Date
ATLANTIC SLOPE DRAINAGE					
	Feet			*Feet*	
Perkiomen Creek: Gratersford, Pa	8	18	19	11.6	18–19
Schuylkill: Philadelphia, Pa	11.5	19	19	12.6	19
Chenango: Sherburne, N. Y	8	19	19	8.9	19
Susquehanna: Oneonta, N. Y	12	19	20	13.3	19
South Branch: Springfield, W. Va	15	18	19	16.25	19
North Fork: Cootes Store, Va	15	18	18	15.9	18
Shenandoah: Riverton, Va	22	19	19	22.0	19
Potomac:					
Harpers Ferry, W. Va	18	19	20	[3] 18.5	19
Washington (near), D. C	10	18	21	13.9	20
James:					
Bremo Bluff, Va	19	18	20	23.1	19
Columbia, Va	10	18	21	24.5	19
State Farm, Va	12	19	20	15.8	19
Richmond, Va	8	19	20	10.7	20
Dan: Danville, Va	11	17	20	21.3	19
Roanoke: Randolph, Va	21	18	21	28.7	20
Weldon, N. C	31	17	24	48.8	22
Williamston, N. C	10	21	(2)	15.0	26
Fishing Creek: Enfield, N. C	14	18	22	16.0	21

[1] Provisional.
[2] Estimated.
[3] Continued at end of month.

FLOOD STAGE REPORT FOR SEPTEMBER 1945—Con.

River and station	Flood stage	Above flood stages—dates		Crest [1]	
		From—	To—	Stage	Date
ATLANTIC SLOPE DRAINAGE—continued					
	Feet			*Feet*	
Tar:					
Rocky Mount, N. C	9	17	24	13.5	22
Tarboro, N. C	18	19	27	27.1	24
Greenville, N. C	13	19	29	19.2	25–26
Neuse:					
Neuse, N. C	14	15	25	26.0	20
Smithfield, N. C	13	16	27	26.0	20
Goldsboro, N. C	14	18	(2)	26.7	23
Kingston, N. C	14	20	(2)	22.4	27
Haw: Moncure, N. C	20	16	21	39.0	18
Cape Fear:					
Fayetteville, N. C	35	16	25	68.9	21
Lock No. 2, Elizabethtown, N. C	20	16	28	43.2	23
Lynches: Effingham, S. C	14	17	27	21.2	22
Waccamaw: Conway, S. C	7	17	(2)	8.8 11.2	19 29–30
Pee Dee:					
Cheraw, S. C	30	16	22	49.4	19
Mars Bluff Bridge, S. C	17	17	(2)	31.3	22
Black: Kingstree, S. C	12	17	26	16.1	20
Saluda:					
Pelzer, S. C	6	17	18	6.4	17–18
Chappells, S. C	13	18	18	13.5	18
Broad:					
Gaffney, S. C	10	17	20	15.4	18
Blairs, S. C	14	16	21	28.8	19
Congaree: Columbia, S. C	19	17	20	24.3	19
Catawba:					
Catawba, N. C	8	17	20	24.6	18
Catawba, S. C	11	16	20	23.2	19
Wateree: Camden, S. C	23	17	22	33.9	18
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Meramec: Pacific, Mo	11	28	28	13.5	28
Ohio Basin					
West Fork: Clarksburg, W. Va	5	18	19	6.4	18
New:					
Ivanhoe, Va	15	18	18	17.25	18
Radford, Va	14	18	18	17.0	18
West Fork: Edwardsport, Ind	12	28	(2)	15.3	30
White Basin					
Black: Black Rock, Ark	14	25	26	15.4	25
Arkansas Basin					
Little Arkansas: Sedgwick, Kans	18			24.1	28
Walnut: Winfield, Kans	23	28	(2)		
Cimarron: Perkins, Okla	11	29	(2)		
Verdigris:					
Independence, Kans	36	25 29	28 (2)	40.2	26
Claremore, Okla	38	27	(2)		
Cottonwood:					
Cottonwood Falls, Kans	9	28 29	28 (2)	9.2 12.0	28 29
Emporia, Kans	20	29	(2)		
Neosho:					
Neosho Rapids, Kans	22	29	(2)		
Burlington, Kans	27	30	(2)		
LeRoy, Kans	23	29 30	30 (2)	23.3	29
Iola, Kans	15	29	(2)		
Chanute, Kans	20	29	(2)		
Parsons, Kans	22	30	(2)		
Oswego, Kans	17	24 30	26 (2)	19.7	25
North Canadian: Canton, Okla	9	28	28	9.1	28
Canadian: Union, Okla	7	30	30	7.0	30
Poteau: Poteau, Okla	21	27	(2)		
Arkansas:					
Arkansas City, Kans	16	28	(2)	19.7	30
Ralston, Okla	16	29	(2)		
Tulsa, Okla	12	29	(2)		
Webbers Falls, Okla	23	28	(2)		
Fort Smith, Ark	22	28	(2)		
Van Buren, Ark	22	29	(2)		
Dardanelle, Ark	22	29	(2)		
WEST GULF OF MEXICO DRAINAGE					
Trinity: Liberty, Tex	24	2	3	24.4	2

[3] Continued at end of month.

CLIMATOLOGICAL DATA FOR SEPTEMBER 1945

CONDENSED CLIMATOLOGICAL SUMMARY OF TEMPERATURE AND PRECIPITATION BY SECTIONS

[For description of tables and charts, see Review, January 1943, p. 15]

In the following table are given for the various sections of the climatological service of the Weather Bureau the monthly average temperature and total rainfall; the stations reporting the highest and lowest temperatures, with dates of occurrence; the stations reporting the greatest and least total precipitation; and other data as indicated by the several headings.

The mean temperature for each section, the highest and lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperatures and precipitation are based only on records from stations that have 10 or more years of observations. Of course, the number of such records is smaller than the total number of stations.

Section	Temperature							Precipitation					
			Monthly extremes							Greatest monthly		Least monthly	
	Section average	Departure from the normal	Station	Highest	Date	Station	Lowest	Date	Section average	Departure from the normal	Station	Amount	Station	Amount
	°F.	°F.		°F.			°F.		In.	In.		In.		In.
Alabama	78.3	+2.6	2 stations	102	[1] 1	Valley Head	46	15	3.46	+0.12	Fairhope	9.87	Pushmataha	0.69
Arizona	74.2	+1.4	Mohawk	118	[1] 4	Alpine	20	30	.25	−1.07	Natural Bridge	2.39	23 stations	.00
Arkansas	74.0	−.3	Morrilton	104	1	White Rock	39	13	7.85	+4.48	White Rock	14.29	El Dorado	2.25
California	69.6	+1.9	2 stations	119	[1] 11	Boca	18	[1] 27	.15	−.28	Aguanga (near)	2.45	92 stations	.00
Colorado	59.4	+1.3	Eversoll Ranch	103	4	Spicer	10	28	1.08	−.29	Holyoke	4.23	Olathe (near)	.00
Florida	80.8	+1.3	4 stations	98	[1] 10	Niceville	59	23	8.41	+1.73	Melbourne	18.77	Bradenton	2.02
Georgia	77.3	+1.9	Columbus	101	10	Blairsville	43	[1] 12	5.32	+1.69	Brunswick	18.03	Milledgeville	2.02
Idaho	54.4	−2.7	Kooskia	107	1	Landmark	12	9	1.76	+.69	Clark Fork	5.60	Deer Flat	.13
Illinois	67.3	−.5	Quincy (city)	101	4	Marengo	32	30	7.70	+4.00	2 stations	11.24	Mount Carroll	4.51
Indiana	68.2	+1.0	La Porte	98	7	Howe	34	30	6.43	+3.10	Mount Vernon	10.84	Evans Landing	2.88
Iowa	62.9	−1.0	2 stations	100	[1] 4	Sibley	21	29	4.37	+.58	Ottumwa	10.65	Estherville	1.14
Kansas	69.2	−.5	do	108	4	2 stations	22	29	4.89	+2.05	Fredonia	18.45	Scott City	.93
Kentucky	72.5	+1.9	Dix Dam	101	1	Farmers	43	12	3.44	+.53	Jackson	8.74	High Bridge	.89
Louisiana	79.0	+1.1	2 stations	100	[1] 1	2 stations	48	[1] 14	3.97	−.06	Schriever	12.42	Logansport	.58
Maryland-Delaware	70.8	+2.9	do	94	[1] 9	Frostburg, Md	37	22	5.35	+1.99	Oakland, Md	9.36	Annapolis, Md	3.39
Michigan	59.5	−.9	Adrian	96	[1] 5	Kenton	12	29	5.02	+1.82	Mount Pleasant	10.54	Marquette	2.06
Minnesota	56.7	−2.3	Wheaton	102	5	3 stations	18	28	3.50	+.65	Hallock	6.04	Canby	1.65
Mississippi	77.8	+1.9	4 stations	99	[1] 1	Edenburg	47	14	3.76	+.68	Deeson	9.00	Pelahatchee	.59
Missouri	69.4	+.1	Clinton	103	4	Grant City	36	29	9.46	+5.38	Buffalo	18.36	Tarkio	3.59
Montana	53.0	−2.2	2 stations	104	2	Summit	10	27	1.85	+.49	Heron	7.94	Lima	.80
Nebraska	62.6	−1.7	3 stations	107	4	2 stations	18	29	2.63	+.57	Weeping Water	6.10	Bloomfield	.96
Nevada	62.2	+.8	Mesquite	112	11	Ruby Lake	10	24	.37	−.05	Fish Creek Ranch	2.93	16 stations	.00
New England	62.7	+2.4	Bangor, Maine	99	7	Woodstock, N. H	23	30	3.52	−.27	Craftsbury Common, Vt.	9.67	North Truro, Mass	.50
New Jersey	69.0	+3.2	Runyon	96	7	3 stations	39	30	4.68	+.90	Plainfield	8.85	Tuckerton	1.77
New Mexico	65.1	+.7	Hagerman	108	5	Eagle Nest	13	25	1.00	−.76	Endee	3.89	5 stations	.00
New York	63.8	+2.6	Carmel	98	8	3 stations	25	30	6.27	+2.75	Big Moose	12.15	Orient	.75
North Carolina	73.8	+2.8	2 stations	99	[1] 9	2 stations	42	12	9.66	+5.55	Rockingham	16.41	Tapoco	2.96
North Dakota	54.5	−2.3	Linton	103	5	do	14	[1] 28	2.14	+.59	Pembina	5.87	New Hradec	.75
Ohio	67.8	+2.1	Napoleon	99	7	Hiram	34	30	5.30	+2.36	Coshocton	10.40	Peebles	1.78
Oklahoma	73.6	−.6	2 stations	110	4	Boise City	29	28	8.25	+5.02	Wyandotte	16.82	Cordell	1.46
Oregon	56.9	−1.0	Illahe	104	[1] 10	Fremont	8	27	1.40	+.21	Valsetz	9.53	Fremont	.05
Pennsylvania	65.9	+1.7	2 stations	96	[1] 1	2 stations	29	30	6.42	+2.97	Wilkes Barre	10.39	Marcus Hook	3.42
South Carolina	76.9	+2.4	Miley	100	10	do	51	[1] 12	11.81	+7.71	Society Hill	19.28	Clemson College	3.80
South Dakota	59.6	−1.9	Faith	108	6	do	15	[1] 28	1.99	+.48	Spearfish	5.58	Kennebec	.76
Tennessee	73.6	+2.1	2 stations	100	[1] 1	Crossville	41	15	3.52	+.46	Selmer	7.47	Etowah	.92
Texas	77.8	+.5	Presidio	108	8	Mount Locke	29	29	2.75	−.24	Henrietta	9.06	El Paso	.12
Utah	59.1	−.7	Zion Nat'l Park	103	5	Woodruff	13	19	.78	−.24	Brigham City	2.71	6 stations	.00
Virginia	71.5	+2.9	Warsaw	98	1	2 stations	40	12	7.26	+4.04	Randolph	13.12	Clinchport	2.94
Washington	57.1	−1.8	4 stations	97	[1] 1	Omak Airport	20	27	2.93	+1.30	Cedar Lake	12.67	2 stations	.00
West Virginia	68.4	+2.1	Huntington	98	[1] 7	3 stations	35	[1] 12	7.18	+4.20	Salem	13.35	Williamson	2.50
Wisconsin	59.2	−1.1	Eau Claire	97	5	Mellen	15	29	3.78	+.07	Beloit	8.67	Ashland	1.16
Wyoming	52.7	−2.1	Morrisey	101	3	Ross	7	28	1.78	+.63	Alva	3.95	Powell	.35
Alaska (August)	51.0	−1.3	2 stations	81	[1] 6	Wiseman	22	28	4.81	+1.28	Whittier	23.09	Wainwright	.24
Hawaii	74.7	−.1	Waianae	93	16	Haleakala Ranger Station.	40	6	3.25	−2.60	Kukui	16.00	12 stations	.00
Puerto Rico	78.5	−.9	Pattillas Dam	103	18	Cayey	57	22	6.41	−1.37	Mona Island	26.67	Coamo Dam	1.38

[1] Other dates also.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR SEPTEMBER 1945

District and station	Elevation of instruments: Barometer above sea level	Thermometer above ground	Anemometer above ground	Pressure: Station	Sea level	Departure from normal	Temperature of the air: Mean	Departure from normal	Maximum	Date	Mean maximum	Minimum	Date	Mean minimum	Greatest daily range	Total degree days	Mean temperature of the dew point	Mean relative humidity	Precipitation: Total	Departure from normal	Greatest in 24 hours	Days with 0.01 inch or more	Wind: Average hourly velocity	Prevailing direction	Maximum velocity: Miles per hour	Direction	Date	Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms
NEW ENGLAND	*Ft.*	*Ft.*	*Ft.*	*Mb.*	*Mb.*	*Mb.*	°F.	°F.	°F.		°F.	°F.		°F.	°F.		°F.	%	*In.*	*In.*	*In.*		*Mi.*								0–10	*In.*	*In.*	
							63.6	+3.2										84	2.93	−0.2											5.6			
Eastport	75	67	85	1,018.0	1,020.7	+3.8	57.8	+2.0	92	7	65	38	30	51	34	239	52	84	2.07	−.7	.84	11	9.2	sw.	30	s.	1	9	6	15	6.4	0.0	0.0	2
Greenville, Maine	1,070	6	41	981.4	1,021.3	.....	56.3	+1.1	89	8	68	29	23	45	38	284	50	...	6.66	+2.9	2.46	15	.....	s.	.....	.....	...	7	9	14	.....	.0	.0	3
Portland, Maine [1]	103	5	43	1,016.9	1,021.0	+3.4	60.6	+1.0	95	7	72	32	30	50	42	176	56	87	3.84	+.7	1.46	12	8.2	s.	27	s.	1	10	6	14	5.8	.0	.0	5
Concord [1]	289	5	45	1,010.5	1,021.7	+3.7	61.4	+3.4	93	7	74	32	30	49	40	164	54	84	1.69	−1.8	.53	11	6.9	nw.	28	nw.	21	6	12	12	6.7	.0	.0	2
Burlington [1]	403	5	51	1,005.1	1,020.3	+2.3	62.6	+2.3	94	8	73	31	30	52	34	171	55	82	8.18	+4.7	2.23	14	9.8	s.	30	s.	24	5	8	17	6.7	.0	.0	7
Boston [1]	124	33	62	1,016.6	1,021.3	+3.0	67.1	+3.9	95	7	76	40	30	58	41	71	56	76	1.81	−1.3	1.13	9	11.0	sw.	33	sw.	1	8	6	16	6.3	.0	.0	4
Nantucket	12	11	59	1,021.0	1,021.7	+3.1	65.9	+3.1	80	12	72	44	30	59	23	56	60	88	.69	−1.8	.34	6	12.3	sw.	31	n.	30	8	8	14	6.1	.0	.0	2
Block Island	26	11	46	1,019.6	1,021.0	+2.4	66.0	+2.6	81	8	72	47	30	60	23	47	62	88	.84	−1.8	.47	10	14.2	sw.	41	e.	18	8	9	13	5.8	.0	.0	3
Providence [2]	159	46	60	1,015.6	1,021.7	+3.4	68.4	+5.2	96	7	78	41	30	58	39	60	58	82	1.87	−1.3	.71	8	8.1	sw.	27	sw.	15	7	8	15	6.0	.0	.0	5
Hartford [1]	159	5	44	.....	1,020.7	+2.4	66.6	+4.9	94	8	77	39	30	56	...	77	58	82	1.59	−1.9	.79	7	7.7	s.	26	s.	1	10	4	16	.....	.0	.0	0
New Haven [1]	107	5	39	1,017.3	1,021.7	+3.4	67.0	+5.2	86	8	75	43	30	59	29	64	60	82	3.00	−.2	.67	10	6.8	sw.	21	e.	18	10	4	16	5.9	.0	.0	4
MIDDLE ATLANTIC							70.5	+3.5										83	5.26	+2.1										6.3			
Albany [1]	97	26	40	1,016.6	1,020.7	+2.4	64.8	+3.6	96	7	75	36	30	55	31	111	57	82	5.83	+3.0	2.80	11	8.3	s.	29	w.	21	8	7	15	6.1	.0	.0	6
Binghamton [2]	871	60	79	989.2	1,021.3	+3.0	65.0	+3.7	91	8	75	34	30	55	34	114	56	87	7.28	+4.2	2.56	14	5.4	e.	19	w.	21	11	4	15	5.9	.0	.0	8
New York	314	415	454	1,009.1	1,020.7	+2.1	69.7	+2.9	89	8	76	45	30	63	35	33	60	77	5.38	+2.0	2.79	10	12.5	s.	43	nw.	21	9	8	13	6.0	.0	.0	3
Harrisburg [1]	374	30	49	1,007.1	1,021.0	+2.4	68.3	+2.5	90	8	78	45	30	59	36	56	60	82	5.41	+2.4	1.77	10	6.7	sw.	24	s.	14	4	9	17	7.0	.0	.0	3
Philadelphia [1]	114	5	57	1,016.6	1,021.0	+2.4	70.9	+2.9	90	1	78	49	30	63	30	31	62	76	3.96	+.8	1.88	10	6.8	sw.	25	sw.	1	5	10	15	6.7	.0	.0	6
Reading	323	47	306	1,009.1	1,021.0	.....	69.2	+2.6	90	1	78	47	30	60	34	44	.....	...	6.87	+3.7	3.05	12	9.9	se.	29	s.	1	4	14	12	6.1	.0	.0	4
Scranton	805	72	104	991.9	1,021.0	+2.7	66.0	+3.1	91	8	76	41	30	57	32	83	.....	...	4.52	+1.4	1.27	15	5.7	n.	22	nw.	21	8	10	12	6.0	.0	.0	7
Atlantic City	52	37	172	1,018.6	1,020.7	+2.4	70.2	+3.4	84	15	75	52	30	65	20	19	64	86	2.28	−.4	1.23	9	14.7	s.	52	ne.	17	5	10	15	7.0	.0	.0	3
Trenton	190	89	107	1,013.9	1,021.0	.....	69.4	+2.5	89	1	77	47	30	61	32	44	60	80	5.21	+1.8	1.39	11	8.2	s.	26	s.	1	7	6	17	6.6	.0	.0	6
Baltimore [2]	123	100	215	1,016.3	1,020.7	+2.1	72.6	+4.1	91	1	80	52	30	65	32	19	64	80	5.06	+1.7	2.58	11	9.3	s.	38	ne.	18	7	12	11	6.3	.0	.0	5
Washington [2]	112	56	100	1,016.3	1,020.3	+1.7	73.2	+5.1	94	29	82	52	22	64	36	16	64	80	4.56	+1.3	2.50	13	6.3	s.	24	ne.	17	6	9	15	6.4	.0	.0	5
Cape Henry	18	8	54	1,019.0	1,020.0	.....	76.2	+4.4	90	11	82	64	13	71	19	0	70	86	3.53	+.7	1.43	10	11.6	ne.	43	e.	17	11	7	12	5.8	.0	.0	5
Lynchburg [1]	686	4	50	995.6	1,020.0	+1.6	71.4	+3.5	92	10	80	50	30	63	27	19	64	86	6.90	+3.6	1.69	17	8.2	ne.	35	e.	17	6	10	14	6.4	.0	.0	10
Norfolk [2]	91	80	125	1,016.9	1,020.7	+2.7	76.2	+4.6	91	14	82	63	30	70	20	0	69	88	5.74	+2.5	1.95	13	9.0	ne.	29	e.	17	6	10	14	6.5	.0	.0	4
Richmond	144	11	52	1,014.6	1,020.0	+1.7	74.4	+3.9	91	9	83	54	30	66	25	3	66	87	6.44	+3.2	2.61	16	7.1	ne.	24	ne.	17	5	14	11	6.3	.0	.0	7
SOUTH ATLANTIC							77.0	+4.1										86	10.40	+6.2										5.6			
Asheville	2,253	77	92	941.8	1,019.6	+1.3	69.6	+4.6	88	10	79	50	12	60	30	18	60	84	4.47	+1.4	2.03	12	6.9	se.	22	se.	13	5	17	8	5.9	.0	.0	6
Charlotte [2]	779	63	86	991.5	1,019.6	+1.3	75.4	+3.9	93	10	84	58	30	67	27	3	66	86	12.66	+9.7	4.12	12	5.8	ne.	24	n.	17	5	10	15	6.6	.0	.0	6
Greensboro [1]	886	6	56	988.5	1,020.3	.....	72.8	+3.0	92	9	82	53	30	63	30	11	68	89	10.99	+7.7	3.52	11	7.2	ne.	34	ne.	17	6	11	13	6.1	.0	.0	6
Hatteras	11	5	50	1,019.0	1,019.6	+1.6	78.3	+3.8	86	21	83	70	30	74	14	0	73	86	6.44	+1.8	1.95	14	11.0	s.	36	nw.	15	12	9	9	5.2	.0	.0	6
Raleigh [1]	376	5	69	1,006.1	1,020.0	+1.7	75.6	+4.5	94	9	84	56	30	67	24	0	68	90	11.58	+8.0	4.47	11	6.0	sw.	26	sw.	14	6	13	11	6.5	.0	.0	4
Wilmington	72	73	107	1,016.6	1,019.0	+1.4	78.8	+5.7	94	23	86	68	20	72	22	0	72	86	8.96	+4.4	3.57	11	7.7	s.	32	e.	17	13	11	6	4.6	.0	.0	7
Charleston [2]	48	11	92	1,016.3	1,018.3	+1.0	80.4	+3.8	96	9	86	69	17	75	21	0	72	90	16.24	+11.7	6.69	14	10.5	e.	57	e.	17	10	15	5	4.6	.0	.0	6
Columbia, S. C. [2]	347	70	91	1,006.1	1,018.6	+1.0	77.8	+3.3	98	10	86	62	12	69	27	0	70	86	10.54	+7.1	4.34	15	6.9	s.	24	n.	17	11	11	8	5.3	.0	.0	8
Greenville, S. C. [1]	1,040	18	36	982.1	1,019.0	.....	74.8	+4.2	93	10	84	58	19	66	28	4	66	82	8.10	+4.4	4.11	14	8.0	ne.	34	n.	17	5	17	8	5.8	.0	.0	5
Augusta [2]	182	62	77	1,011.5	1,018.0	+.4	78.8	+3.5	98	10	88	62	12	70	29	0	68	80	4.78	+1.4	1.54	12	5.5	s.	24	n.	17	6	11	13	6.2	.0	.0	6
Savannah [4]	65	73	152	1,015.6	1,018.0	+1.1	80.1	+5.8	98	9	89	67	18	72	26	0	72	90	15.72	+10.3	8.82	15	9.9	sw.	36	n.	17	10	14	6	5.0	.0	.0	11
Jacksonville [2]	43	86	110	1,015.9	1,018.0	+2.1	81.2	+2.9	97	10	89	69	17	74	21	0	72	84	14.27	+6.9	6.74	16	8.0	e.	37	ne.	16	8	16	6	5.3	.0	.0	7
FLORIDA PENINSULA							81.2	+0.2										84	8.01	+0.7										5.7			
Key West [2]	21	10	64	1,014.2	1,015.2	+1.3	82.4	+.2	90	23	88	69	30	77	17	0	75	82	8.04	+1.3	4.23	19	10.6	e.	29	se.	30	10	13	7	5.0	.0	.0	6
Miami [2]	25	242	249	1,014.6	1,015.6	+.7	79.6	−1.3	87	12	84	69	14	76	16	0	74	85	7.79	−.9	3.07	20	15.3	e.	86	se.	15	1	23	6	6.2	.0	.0	5
Tampa [1]	35	6	43	1,014.9	1,016.3	+1.4	81.6	+1.7	93	19	89	69	3	74	22	0	74	86	8.19	+1.8	1.87	13	9.9	e.	35	n.	16	3	20	7	5.9	.0	.0	15
EAST GULF							78.7	+3.0										83	4.08	−0.2										5.1			
Atlanta [1]	1,173	33	72	977.3	1,018.0	+.4	76.2	+3.4	95	9	85	59	18	67	30	0	64	76	3.05	.0	1.79	8	9.4	e.	29	e.	4	6	16	8	5.5	.0	.0	5
Macon [2]	370	79	87	1,004.4	1,017.6	+.7	78.2	+3.4	97	10	87	60	12	69	31	0	68	80	2.80	−.4	1.31	12	6.2	e.	25	sw.	13	5	12	13	6.4	.0	.0	8
Thomasville	273	49	58	1,007.5	1,017.6	+1.3	80.0	+3.2	95	2	90	64	3	70	28	0	.....	...	3.99	−.9	.72	13	.....	.....	.....	.....	...	3	12	15	.....	.0	.0	9
Apalachicola	35	11	51	1,015.2	1,016.6	.....	80.8	+2.3	92	10	86	67	17	75	20	0	73	82	2.65	−5.4	1.06	10	9.4	se.	26	se.	28	11	12	7	5.0	.0	.0	13
Pensacola	56	54	79	1,014.9	1,016.9	+1.3	79.8	+1.8	93	10	87	64	15	73	26	0	72	85	8.11	+2.8	3.11	10	7.5	se.	26	se.	29	12	13	5	4.3	.0	.0	9
Anniston	741	9	.....	.....	.....	.....	75.3	+4.0	92	9	86	51	15	65	31	2	.....	...	2.73	−.9	1.74	7	.....	nw.	.....	.....	...	17	10	3	.....	.0	.0	2
Birmingham [1]	700	5	62	992.9	1,018.0	+1.1	76.4	−3.2	98	1	88	51	15	65	33	1	66	80	3.79	.....	1.18	10	7.5	ne.	34	nw.	10	9	17	4	4.9	.0	.0	7
Mobile [2]	57	86	161	1,014.6	1,016.9	+1.0	80.6	+2.5	96	1	88	61	15	73	21	0	70	86	5.41	+.4	2.05	10	6.0	e.	18	sw.	13	6	17	7	5.4	.0	.0	11
Montgomery [2]	218	92	105	1,007.5	1,017.6	+1.0	79.6	+3.3	96	9	89	60	15	70	25	0	69	83	4.92	+1.9	2.08	10	6.5	e.	23	se.	5	10	17	3	4.5	.0	.0	5
Meridian [2]	375	67	92	1,003.7	1,017.3	+.7	78.4	+3.9	99	1	89	53	15	68	30	0	66	82	1.72	−1.2	.39	11	5.4	n.	22	n.	10	12	14	4	4.2	.0	.0	8
Vicksburg [2]	247	82	102	1,007.5	1,016.6	.0	78.2	+1.9	93	28	87	55	16	69	26	0	69	92	3.37	+.5	1.86	9	7.5	se.	21	se.	12	7	14	9	5.3	.0	.0	7
New Orleans [4]	53	50	84	1,013.9	1,015.9	+.7	80.8	+2.6	96	1	88	66	15	74	22	0	72	82	6.12	+1.1	1.84	12	5.9	se.	17	se.	30	10	13	7	5.5	.0	.0	12
WEST GULF							79.0	+1.3										76	4.66	+1.0										4.7			
Shreveport [1]	249	5	64	1,006.8	1,015.6	−.3	79.0	+3.1	98	1	89	53	14	69	29	0	68	77	2.81	.0	.81	9	8.1	se.	27	n.	10	8	16	6	5.1	.0	.0	8
Fort Smith	463	57	82	998.6	1,014.6	−1.7	75.0	+1.0	98	1	85	52	15	65	46	8	64	74	9.09	+6.1	3.42	10	7.8	e.	26	nw.	25	13	6	11	5.2	.0	.0	7
Little Rock [1]	357	26	58	1,003.4	1,016.3	−.6	74.4	+.3	96	1	84	50	14	65	28	13	66	82	9.01	+5.8	3.71	11	7.1	s.	34	nw.	1	10	10	10	5.4	.0	.0	8
Austin [1]	605	10	41	993.2	1,014.2	.....	78.8	+.5	96	2	90	53	29	68	33	10	65	70	2.76	−.6	2.48	6	8.7	s.	26	s.	23	12	12	6	4.4	.0	.0	6
Brownsville [1]	57	5	54	1,011.2	1,013.2	.....	81.4	+.8	94	10	90	61	30	72	26	0	71	79	3.13	−2.7	1.25	5	9.9	se.	26	n.	13	9	18	3	4.6	.0	.0	2
Corpus Christi [1]	20	4	33	1,013.5	1,013.9	−.3	80.3	+1.7	95	3	89	58	30	72	24	0	71	81	1.82	.....	.93	5	10.0	se.	29	ne.	12	15	14	1	3.8	.0	.0	4
Dallas	512	5	45	996.6	1,014.6	.....	78.0	+.6	99	1	89	50	15	67	38	18	62	67	1.91	−.8	1.08	7	11.4	s.	28	s.	21	14	10	6	4.4	.0	.0	3
Fort Worth [1]	679	40	56	990.9	1,014.6	−1.0	78.2	+2.3	100	1	89	50	29	67	32	22	61	63	2.17	−.3	.84	7	12.3	s.	36	nw.	12	16	9	5	4.0	.0	.0	4
Galveston [2]	54	106	114	1,013.2	1,014.9	−.3	81.7	+1.6	91	5	86	67	14	77	17	0	72	77	6.95	+1.4	4.33	9	9.8	s.	30	ne.	11	9	18	3	4.5	.0	.0	6
Houston [2]	138	157	190	1,009.8	1,014.6	.....	80.7	+1.7	93	6	90	60	15	72	25	0	70	82	2.85	−1.2	.86	11	8.9	se.	27	ne.	11	8	16	6	5.1	.0	.0	8
Palestine	510	64	72	997.6	1,015.2	−.4	78.0	+1.0	95	11	88	55	15	68	27	3	66	72	5.70	+2.8	3.33	8	6.6	s.	23	w.	12	11	12	7	4.9	.0	.0	8
Port Arthur [2]	34	59	134	1,013.9	1,014.9	.....	81.0	+1.5	94	1	88	62	15	74	23	0	70	84	6.48	+1.7	3.00	15	11.3	s.	33	s.	11	11	15	4	4.3	.0	.0	11
San Antonio [1]	693	8	51	990.2	1,013.9	−.7	80.2	+1.2	99	12	93	52	14	68	38	5	64	68	3.00	.0	2.60	5	9.1	se.	35	nw.	12	8	13	9	5.1	.0	.0	4
OHIO VALLEY AND TENNESSEE							70.9	+3.3										81	5.07	+2.1										6.0			
Chattanooga [1]	762	6	66	991.2	1,018.3	+.3	75.0	+6.8	97	9	87	50	15	63	34	1	64	80	1.26	−1.8	.93	6	6.3	s.	31	nw.	10	7	20	3	5.1	.0	.0	4
Knoxville [1]	995	27	53	983.4	1,019.0	+2.7	74.5	+5.1	94	1	85	53	15	64	31	6	63	76	2.88	+.2	1.48	8	6.4	ne.	22	nw.	10	11	14	5	4.7	.0	.0	3
Memphis [4]	399	5	86	1,002.4	1,016.3	−.6	75.2	+3.3	94	9	85	52	14	65	31	11	66	82	6.04	+3.2	2.45	9	7.3	sw.	29	nw.	25	9	11	10	5.3	.0	.0	6
Nashville [1]	546	5	72	998.0	1,017.6	−.4	75.3	+3.5	95	9	87	53	16	64	31	7	64	76	3.40	.0	1.17	7	7.3	s.	27	se.	23	9	16	5	5.1	.0	.0	6
Lexington	989	4	28	983.1	1,019.0	+.7	71.8	+3.3	93	1	83	52	12	61	31	19	62	80	1.61	−1.5	.84	8	.....	s.	.....	.....	...	6	15	9	5.4	.0	.0	5

See footnotes at end of tables.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR SEPTEMBER 1945—Continued

District and station	Elevation of instruments: Barometer above sea level	Thermometer above ground	Anemometer above ground	Pressure: Station	Sea level	Departure from normal	Temperature of the air: Mean	Departure from normal	Maximum	Date	Mean maximum	Minimum	Date	Mean minimum	Greatest daily range	Total degree days	Mean temperature of the dew point	Mean relative humidity	Precipitation: Total	Departure from normal	Greatest in 24 hours	Days with 0.01 inch or more	Wind: Average hourly velocity	Prevailing direction	Maximum velocity: Miles per hour	Direction	Date	Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms
OHIO VALLEY AND TENNESSEE—Con.	*Ft.*	*Ft.*	*Ft.*	*Mb.*	*Mb.*	*Mb.*	°*F.*	°*F.*	°*F*		°*F*	°*F.*		°*F.*	°*F*		°*F.*	%	*In.*	*In.*	*In.*		*Mi.*								*0–10*	*In.*	*In.*	
Louisville [2]	525	106	120	999.0	1,018.0	.0	72.2	+3.2	93	7	83	52	16	62	35	11	62	78	3.49	+.7	1.20	11	7.2	s.	26	sw.	23	5	15	10	6.2	.0	.0	
Evansville [1]	431	11	40	1,001.7	1,017.3	−.7	70.1	+2.4	90	9	80	50	16	61	33	25	63	86	9.89	+6.6	3.45	14	7.0	s.	24	n.	21	7	7	16	6.6	.0	.0	15
Indianapolis [1]	823	5	54	988.5	1,018.3	+.3	67.4	+2.0	91	7	77	47	29	58	32	58	60	84	5.61	----	1.53	15	8.7	sw.	28	se.	13	7	9	14	6.3	.0	.0	11
Terre Haute [2]	575	68	149	997.0	1,018.0	----	69.0	+.2	92	9	78	48	29	60	32	44	60	84	6.68	+3.1	2.65	14	8.5	s.	26	ne.	13	6	10	14	6.5	.0	.0	8
Cincinnati [2]	627	11	51	995.9	1,019.0	+.7	71.0	+3.9	95	7	81	49	30	61	33	24	61	82	4.43	+1.8	1.26	14	6.3	sw.	21	sw.	8	7	12	11	6.1	.0	.0	11
Columbus [2]	822	90	110	989.8	1,019.3	+1.0	70.0	+3.5	94	7	79	49	30	61	33	31	59	80	2.71	+.1	.59	13	8.3	s.	38	sw.	25	7	8	15	6.4	.0	.0	5
Dayton [1]	1,003	6	55	983.7	1,019.3	----	68.2	+2.3	92	7	78	47	30	59	30	47	58	78	4.40	+1.5	1.72	14	9.9	s.	34	sw.	8	4	14	12	6.3	.0	.0	8
Elkins [1]	1,947	4	45	952.3	1,021.0	+2.4	65.6	+3.7	88	10	77	45	12	54	34	62	59	92	5.98	+2.8	1.54	18	4.9	se.	22	nw.	11	4	8	18	7.0	.0	.0	7
Parkersburg	637	77	84	996.3	1,019.6	+1.0	70.7	+3.4	95	8	80	51	12	61	30	34	60	80	8.12	+5.4	2.96	14	5.7	se.	18	se.	10	7	11	12	6.2	.0	.0	7
Pittsburgh [1]	842	39	54	989.5	1,020.0	+1.4	67.4	+2.7	89	10	77	43	30	58	28	62	58	82	10.08	+7.5	1.76	16	9.3	s.	31	nw.	10	4	11	15	6.7	.0	.0	10
LOWER LAKES							64.8	+2.7										80	5.40	+2.5											6.4			
Buffalo [1]	768	34	96	991.9	1,020.0	+2.0	64.2	+2.6	93	6	74	35	30	55	29	125	56	80	4.88	+2.0	2.13	13	12.1	sw.	42	sw.	11	5	13	12	6.6	.0	.0	3
Canton	448	10	61	1,003.1	1,019.3	----	60.6	+1.8	90	8	71	37	30	56	28	134	56	78	5.29	+2.6	2.20	12	8.5	s.	29	n.	29	7	10	13	6.1	.0	.0	5
Oswego	335	71	85	1,007.5	1,020.3	+2.3	63.8	+2.3	89	8	71	37	30	56	28	134	56	81	5.21	+2.8	2.43	11	8.2	sw.	50	sw.	11	5	10	15	6.5	.0	.0	4
Rochester [1]	523	5	69	1,000.7	1,020.3	+2.3	64.3	+3.9	94	7	74	39	30	55	31	134	56	81	5.21	+2.8	2.43	11	8.7	sw.	32	nw.	21	6	10	14	6.5	.0	.0	6
Syracuse [1]	596	5	57	998.3	1,020.3	+2.0	64.7	+4.4	93	8	75	33	30	54	36	134	56	81	6.74	+4.0	2.30	14	8.7	sw.	32	nw.	21	6	10	14	6.5	.0	.0	6
Erie [2]	714	57	81	993.6	1,020.0	+2.0	66.6	+3.0	90	10	74	39	30	59	26	83	57	83	7.62	+4.2	2.03	18	7.6	se.	21	sw.	11	6	12	12	6.4	.0	.0	9
Cleveland [1]	762	27	54	991.5	1,019.3	+1.3	66.9	+3.1	93	6	76	40	30	58	33	76	57	80	6.37	+3.0	1.85	16	9.7	se.	32	sw.	1	5	13	12	6.4	.0	.0	7
Sandusky	629	5	67	995.9	1,019.3	+1.3	67.4	+2.1	94	8	76	44	30	59	35	61	----	----	5.15	+2.2	1.45	17	8.4	sw.	29	w.	8	6	10	14	6.1	.0	.0	5
Toledo [1]	628	5	47	995.9	1,019.0	+1.0	65.4	+2.3	92	5	76	44	29	55	37	92	56	80	3.46	+.7	2.76	16	10.0	e.	35	nw.	28	7	9	14	6.6	.0	.0	8
Fort Wayne [1]	857	5	33	987.5	1,018.3	----	64.6	+1.5	92	7	75	38	30	54	35	102	57	82	4.22	+1.2	1.21	13	7.1	se.	26	nw.	28	5	12	13	6.3	.0	.0	5
Detroit [1]	730	5	78	992.9	1,019.3	+1.3	64.7	+2.3	92	7	73	39	29	56	30	109	54	76	4.40	+1.8	1.81	13	9.0	s.	30	nw.	23	6	6	18	6.8	.0	.0	3
UPPER LAKES							59.0	−0.2										81	4.56	+1.3											6.3			
Alpena	609	5	89	996.6	1,019.6	+2.7	58.0	+.4	89	6	65	32	30	51	23	252	50	80	4.01	+1.0	1.31	12	9.9	nw.	27	se.	17	9	8	13	6.2	.0	.0	2
Escanaba	612	51	72	995.9	1,018.3	+2.0	57.0	−.1	79	7	65	30	29	49	24	263	50	80	2.95	−.4	.85	14	10.7	s.	41	n.	28	7	12	11	6.0	T	.0	4
Grand Rapids [2]	707	70	244	992.9	1,018.6	+1.0	63.0	+.3	92	5	72	35	30	54	30	150	54	82	6.89	+3.4	1.60	18	9.5	e.	28	sw.	24	6	9	15	6.3	.0	.0	7
Lansing [2]	878	5	90	987.1	1,019.3	----	60.8	−.6	86	6	69	33	30	52	26	180	52	78	6.58	+3.7	2.35	15	7.4	s.	18	n.	28	6	7	17	6.6	.0	.0	5
Marquette	734	44	73	990.5	1,018.0	+2.1	57.2	−.3	94	7	66	35	29	49	30	281	48	78	2.06	−1.2	.47	14	9.0	s.	26	sw.	3	7	12	11	6.2	T	.0	5
Sault Sainte Marie [1]	614	11	52	995.9	1,019.3	+2.7	54.0	.0	87	7	64	27	30	44	29	354	48	88	3.55	.0	1.12	13	10.4	se.	31	nw.	24	5	8	17	7.0	T	.0	10
Chicago [1]	673	5	36	993.6	1,018.3	+1.0	64.0	−.9	95	7	73	43	30	55	28	128	50	80	6.01	+2.8	1.41	17	8.5	se.	28	w.	23	7	9	14	6.3	.0	.0	5
Green Bay	617	3	30	995.9	1,018.6	+2.0	59.9	−.5	90	7	68	30	30	51	25	222	50	76	2.57	−1.0	.62	13	9.6	s.	29	n.	28	8	7	15	6.4	.0	.0	5
Milwaukee [1]	681	33	66	993.2	1,018.3	+1.4	61.8	+.8	91	5	70	38	29	54	26	170	54	80	6.27	+3.0	2.28	11	12.4	s.	42	sw.	19	5	10	15	6.5	.0	.0	7
Duluth [2]	1,133	5	47	975.3	1,017.3	+2.1	54.3	−.8	88	6	63	29	28	45	27	344	46	84	4.72	+1.4	1.62	11	11.2	nw.	33	nw.	20	10	7	13	5.6	.0	.0	8
NORTH DAKOTA							54.5	−2.5										72	2.58	+1.0											6.0			
Fargo [1]	940	5	43	980.4	1,015.2	+.6	56.2	−2.0	96	6	67	26	28	45	44	313	46	76	2.98	+.8	.96	12	12.5	s.	37	w.	9	7	13	10	6.0	.0	.0	4
Bismarck [1]	1,677	5	43	954.6	1,015.2	+1.3	55.6	−1.7	102	5	69	20	29	43	44	330	44	70	1.99	+.8	1.43	14	11.1	nw.	38	nw.	9	9	10	11	5.8	T	.0	3
Devils Lake	1,478	11	44	961.4	1,015.2	+1.3	53.2	−2.7	96	5	64	23	29	42	42	390	43	74	3.83	+2.2	1.92	14	8.4	nw.	31	nw.	10	8	8	14	6.2	T	.0	5
Grand Forks [1]	832	4	41	984.4	1,014.9	----	53.7	----	98	6	65	21	28	42	43	380	45	78	3.67	----	2.03	14	----	n.	--	----	--	10	3	17	----	T	.0	5
Williston	1,878	42	50	947.5	1,014.2	+.7	53.0	−3.6	99	4	65	24	28	41	40	404	38	64	1.51	+.4	.65	6	7.5	nw.	30	nw.	9	7	10	13	5.9	T	.0	2
UPPER MISSISSIPPI							64.4	−0.6										79	5.63	+1.9											6.1			
Minneapolis - St. Paul [1]	919	43	74	983.1	1,016.3	+.7	60.2	−1.2	94	5	70	27	29	50	34	227	50	78	2.13	−1.0	.98	12	11.3	se.	39	e.	23	9	9	12	5.7	T	.0	7
Springfield, Minn.	1,025	4	42	979.0	1,016.3	----	----	----	----	----	----	----	----	----	----	----	----	75	2.64	----	.92	13	----	se.	----	----	--	12	9	9	----	T	.0	6
La Crosse [1]	714	5	29	991.2	1,017.3	+1.0	59.2	−2.2	92	5	70	28	29	48	30	238	52	82	3.08	−.9	1.07	11	7.9	se.	28	w.	9	8	8	14	6.2	.0	.0	4
Madison [2]	974	70	78	982.7	1,018.3	+1.4	61.2	−1.2	88	5	69	35	29	54	25	187	52	81	3.96	+.2	1.18	11	8.2	se.	29	ne.	28	7	11	12	6.4	.0	.0	5
Charles City	1,015	10	51	981.0	1,018.0	+2.1	59.8	−1.2	92	5	70	28	29	49	32	221	----	----	2.54	−1.1	.90	12	6.2	se.	23	nw.	10	9	11	10	5.6	.0	.0	5
Moline [1]	606	6	50	995.6	1,018.0	+1.1	63.9	.0	95	4	74	41	29	54	36	139	54	78	4.74	+1.2	1.50	12	9.0	e.	46	w.	9	7	9	14	6.3	.0	.0	5
Des Moines [2]	860	5	99	986.1	1,017.3	+.7	64.6	−1.0	95	4	75	34	29	55	31	124	53	74	5.58	+1.9	3.03	12	9.0	se.	35	sw.	23	8	9	13	5.9	.0	.0	7
Dubuque	699	60	79	992.2	1,017.6	+.7	62.8	−1.2	92	5	72	36	29	54	27	161	54	79	7.34	+3.3	1.76	12	5.5	se.	17	nw.	1	6	11	13	6.2	.0	.0	8
Burlington [1]	702	4	36	991.9	1,017.3	+.4	64.4	−2.0	96	5	75	40	29	54	35	128	56	82	6.14	+1.7	1.72	14	9.8	se.	37	w.	9	8	8	14	6.3	.0	.0	8
Cairo	357	5	99	1,004.1	1,016.9	+.7	72.8	+.3	93	9	82	54	16	64	27	16	----	----	6.30	+3.4	3.19	15	7.8	ne.	24	sw.	13	8	11	11	6.0	.0	.0	10
Peoria [1]	609	6	26	995.6	1,017.6	+.3	65.4	+2.1	92	9	74	43	29	56	33	102	58	82	7.36	+3.3	2.61	14	9.2	e.	28	ne.	13	9	8	13	6.0	.0	.0	7
Springfield, Ill. [2]	636	5	191	994.2	1,017.3	−.3	68.0	+.4	93	9	76	46	29	59	27	63	58	84	8.38	+4.7	2.95	16	10.7	s.	26	s.	23	10	4	16	6.1	.0	.0	9
St. Louis [2]	568	35	303	996.6	1,016.9	−.4	70.2	−.3	94	9	78	48	29	63	----	47	----	78	10.01	+6.6	4.11	17	11.1	s.	32	sw.	24	11	4	15	----	.0	.0	6
MISSOURI VALLEY							66.0	−0.2										72	5.42	+2.3											5.2			
Columbia, Mo. [2]	784	6	66	988.2	1,016.3	−.6	69.0	−.4	97	5	78	44	29	60	31	70	58	78	13.34	+9.0	3.90	18	7.2	s.	24	nw.	9	13	6	11	5.2	.0	.0	9
Kansas City [1]	963	39	76	----	1,015.2	−1.4	69.8	+9	98	4	79	42	29	60	----	62	56	70	6.55	+2.7	1.40	16	10.5	s.	34	s.	23	11	5	14	----	.0	.0	12
St. Joseph [2]	967	11	49	981.0	1,015.2	----	68.0	−.4	97	5	78	40	29	58	38	82	56	74	5.35	+1.4	1.16	15	7.9	se.	24	nw.	9	15	7	8	4.4	.0	.0	9
Springfield, Mo. [1]	1,324	5	67	969.2	1,016.3	−.6	69.4	+1.0	96	1	80	46	29	59	33	55	61	82	9.46	+5.9	2.94	15	11.8	s.	40	s.	12	12	3	15	5.7	.0	.0	13
Topeka	987	65	87	980.0	1,014.9	----	69.9	+1.2	98	9	81	41	29	59	38	71	56	70	6.20	+2.4	1.90	13	9.3	s.	29	sw.	23	11	9	10	5.7	.0	.0	8
Lincoln [2]	1,189	11	81	972.9	1,014.9	−.7	67.3	+.9	100	4	80	37	28	55	36	112	50	66	3.22	+.2	1.38	10	9.6	s.	31	nw.	9	14	7	9	4.5	.0	.0	8
Omaha [1]	1,105	5	68	976.3	1,015.9	.0	66.1	+.4	95	1	78	34	29	55	35	116	54	72	4.30	+1.1	1.80	12	11.3	n.	34	w.	16	12	10	8	5.0	.0	.0	7
Valentine	2,598	46	54	924.5	1,015.6	+1.0	59.6	−2.9	101	5	74	22	29	45	42	251	42	59	1.79	+.5	.84	8	9.3	w.	33	s.	25	16	5	9	4.4	6.0	.0	2
Sioux City [1]	1,138	5	40	974.9	1,015.6	+.4	61.6	−.9	93	3	74	24	29	49	35	192	52	76	2.65	−.4	1.34	6	9.8	se.	34	s.	16	10	11	9	5.1	T	.0	3
Huron [1]	1,301	5	41	968.5	1,015.2	+.6	59.8	−1.5	101	5	72	27	29	47	41	240	48	70	1.36	−.2	.59	7	13.3	s.	44	se.	16	11	9	10	5.4	.0	.0	7
NORTHERN SLOPE							55.5	−1.6										60	2.12	+0.9											5.6			6
Billings [1]	3,570	16	40	892.0	1,014.6	----	57.1	−3.1	95	5	69	31	28	45	44	299	41	59	1.33	----	.48	8	10.8	sw.	47	nw.	8	9	11	10	5.6	T	.0	1
Havre	2,507	11	67	926.5	1,015.6	+1.7	54.1	−2.3	97	2	67	31	27	41	47	353	38	62	3.17	+1.9	1.64	11	8.9	w.	26	nw.	9	8	5	17	6.2	1.6	.0	2
Helena [1]	4,124	5	43	875.0	1,016.3	+1.4	53.2	−2.2	95	3	67	26	28	39	51	378	35	58	1.46	+.2	.97	7	8.5	w.	45	nw.	8	9	8	13	5.6	1.2	.0	3
Missoula [1]	3,263	4	32	903.8	1,017.3	----	54.8	+1.3	95	1	68	27	28	41	47	329	36	58	1.31	+.1	.46	11	6.8	nw.	40	nw.	8	9	8	13	5.8	T	.0	2
Kalispell	2,973	48	56	913.0	1,015.9	+1.3	52.0	−1.5	86	3	63	28	27	41	41	398	39	66	1.57	+.3	.59	11	5.8	w.	26	ne.	11	10	6	14	6.0	1.3	.0	6
Miles City [1]	2,371	5	78	931.3	1,014.9	+.7	56.8	----	99	2	70	28	27	44	44	310	40	66	1.91	----	.96	8	----	nw.	--	----	--	5	11	14	6.7	.0	.0	2
Rapid City [1]	3,259	5	63	902.1	1,015.2	+.6	58.0	−2.2	98	5	70	27	28	45	39	285	40	58	2.12	+.9	.59	9	13.3	nw.	57	nw.	8	10	10	10	5.4	T	.0	3
Cheyenne [1]	6,094	5	40	815.1	1,014.9	+.3	54.3	−2.7	90	6	70	20	27	39	47	359	34	53	1.43	+.2	.74	8	10.7	nw.	40	n.	11	12	11	7	5.0	3.1	.0	4
Lander	5,352	60	68	836.8	1,015.2	+.6	53.2	−2.5	87	1	69	24	28	38	48	365	36	58	1.62	+.7	.74	5	4.6	sw.	38	w.	15	13	10	7	4.8	5.8	.0	2
Sheridan [1]	3,790	5	38	885.2	1,015.6	----	56.5	+.2	95	5	70	27	28	43	43	313	37	57	3.02	+1.8	.88	9	8.3	nw.	59	nw.	8	9	10	11	5.6	.8	.0	4
North Platte [2]	2,821	11	51	917.0	1,014.9	.0	61.6	−.5	98	3	75	26	29	48	41	197	46	68	3.40	+2.0	1.03	11	7.2	n.	24	ne.	27	14	7	9	4.7	1.0	.0	9

See footnotes at end of tables.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR SEPTEMBER 1945—Continued

District and station	Elevation of instruments: Barometer above sea level	Elevation of instruments: Thermometer above ground	Elevation of instruments: Anemometer above ground	Pressure: Station	Pressure: Sea level	Pressure: Departure from normal	Temperature of the air: Mean	Temperature of the air: Departure from normal	Temperature of the air: Maximum	Temperature of the air: Date	Temperature of the air: Mean maximum	Temperature of the air: Minimum	Temperature of the air: Date	Temperature of the air: Mean minimum	Temperature of the air: Greatest daily range	Total degree days	Mean temperature of the dew point	Mean relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: Days with 0.01 inch or more	Wind: Average hourly velocity	Wind: Prevailing direction	Wind: Maximum velocity: Miles per hour	Wind: Maximum velocity: Direction	Wind: Maximum velocity: Date	Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms
MIDDLE SLOPE	*Ft.*	*Ft.*	*Ft.*	*Mb.*	*Mb.*	*Mb.*	°F.	°F.	°F		°F.	°F.		°F.	°F		°F.	%	*In.*	*In.*	*In.*		*Mi.*								*0-10*	*In.*	*In.*	
							67.8	−1.0		6								62	4.75	+2.6											4.9			
Denver [3]	5,292	106	113	839.5	1,014.6	.0	66.8	−2.1	94	4	74	25	28	48	41	219	37	52	.86	−.1	.56	5	7.2	s.	31	ne.	11	10	16	4	4.6	...	.0	4
Pueblo [1]	4,690	5	36	857.8	1,014.2	−.4	62.3	−2.3	98	4	79	30	28	46	51	176	38	52	.36	−.4	.22	4	7.4	nw.	44	nw.	16	16	7	7	4.5	T	.0	1
Concordia	1,392	50	58	965.5	1,014.6	−1.0	68.0	−.3	102	4	80	37	28	56	45	111	52	65	2.29	−.3	1.46	10	8.6	s.	26	sw.	21	13	8	9	4.9	.0	.0	6
Dodge City [1]	2,509	5	58	927.2	1,013.9	−1.3	68.0	−1.4	102	2	81	34	28	55	43	118	49	60	2.58	+.7	1.85	10	17.2	s.	47	s.	16	16	5	9	4.5	T	.0	8
Wichita [1]	1,358	6	64	966.5	1,014.2	−1.7	69.8	−.8	97	1	81	41	28	59	34	65	55	68	10.58	+7.5	4.79	15	15.1	s.	42	s.	21	14	7	9	4.9	.0	0	11
Oklahoma City [2]	1,214	10	47	971.6	1,014.2	−1.4	73.1	+.3	100	1	84	43	29	62	34	45	58	66	7.42	+4.4	2.95	11	10.0	s.	26	n.	12	12	6	12	5.1	.0	.0	7
Tulsa [1]	674	10	60	990.5	1,014.6	.....	72.8	−.1	101		84	46	29	62	37	33	60	72	9.17	+6.1	2.33	12	11.3	s.	24	nw.	24	11	7	12	5.6	.0	.0	9
SOUTHERN SLOPE							75.0	+2.2										56	1.64	−0.9									3.9			
Abilene [1]	1,738	4	59	953.3	1,012.5	−2.1	77.2	+3.4	98	2	89	43	29	65	39	37	58	60	.87	−1.8	.74	3	15.2	s.	41	n.	12	14	12	4	4.2	.0	.0	2
Amarillo [1]	3,676	5	42	889.9	1,012.9	−1.7	69.8	+2.0	102	4	84	33	28	55	44	93	49	58	4.02	+1.7	1.96	6	16.2	s.	45	sw.	16	20	4	6	3.6	T	.0	9
Del Rio	960	63	71	979.7	1,011.9	−2.0	81.2	+2.0	102	12	92	48	29	71	36	22	62	58	.90	−2.1	.57	3	10.8	se.	29	ne.	12	14	8	8	4.6	.0	.0	2
Roswell	3,566	75	85	893.0	1,012.5	−.7	71.8	+1.5	100	5	86	36	29	57	42	58	46	47	.79	−1.3	.54	4	8.5	s.	28	ne.	12	20	5	5	3.2	.0	.0	4
SOUTHERN PLATEAU							74.9	+2.8										40	0.14	−0.9									2.5			
El Paso [1]	3,778	39	85	886.2	1,010.5	−1.4	75.8	+3.5	100	6	88	41	30	63	33	28	48	42	.12	−1.1	.12	1	9.7	s.	38	n.	10	21	7	2	2.8	.0	.0	3
Albuquerque [1]	5,314	5	45	838.8	1,010.5	.....	70.6	+2.7	96	6	83	39	30	58	33	53	37	34	.26	−.6	.22	4	10.2	s.	41	e.	28	20	7	3	3.1	T	.0	1
Flagstaff	6,907	36	51	793.1	1,014.9	+2.7	60.7	+5.2	90	4	78	28	30	44	48	168	34	46	.18	−1.5	.15	3	.....	n.	.....	.....	..	18	11	1	3.1	.0	.0	4
Phoenix [2]	1,107	39	87	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tucson [1]	2,555	5	39	923.8	1,009.1	.....	80.9	+1.2	107	5	95	49	29	67	38	2	48	36	.14	−1.0	.14	1	.....	se.	.....	.....	..	25	3	2	2.3	.0	.0	2
Yuma	142	9	54	1,003.4	1,007.5	−1.0	86.7	+3.0	116	4	102	57	24	72	40	0	55	42	T	−.4	T	0	5.3	sw.	20	n.	28	27	2	1	1.2	.0	.0	1
MIDDLE PLATEAU							61.7	+0.1										41	0.18	−0.4									2.3			
Reno [1]	4,527	20	52	863.9	1,015.2	+1.0	60.2	+2.2	96	10	82	25	27	39	54	190	35	49	.00	−.3	.00	0	6.5	w.	38	se.	21	25	2	3	2.2	.0	.0	0
Tonopah	6,090	9	20	815.8	1,012.9	.....	63.6	+.4	88	11	76	32	27	51	31	163	30	31	.01	−.3	.01	1	.....	w.	.....	.....	..	24	6	0	.....	.0	.0	1
Winnemucca	4,339	5	56	870.3	1,016.3	−2.8	59.2	.0	96	1	78	22	28	40	56	243	32	42	.30	−.1	.28	2	7.4	ne.	30	nw.	5	23	3	4	2.5	T	.0	1
Modena	5,473	10	46	834.7	1,012.9	−.3	60.4	+.4	91	5	79	25	29	42	47	179	.....	.....	.....	−.8	.02	1	8.0	sw.	25	sw.	21	23	5	2	2.1	.0	.0	1
Salt Lake City [1]	4,227	32	58	868.6	1,014.9	+.7	60.6	−2.1	95	1	75	33	29	46	42	211	37	47	.64	−.3	.42	6	9.3	se.	54	nw.	21	15	13	2	3.6	.0	.0	4
Grand Junction	4,602	60	68	859.8	1,013.2	−1.0	66.0	−.2	96	6	80	40	20	52	39	91	34	34	.10	−.8	.06	2	6.5	se.	26	s.	21	19	9	2	3.2	.0	.0	1
NORTHERN PLATEAU							58.7	−1.4										52	1.14	+0.4									4.4			
Baker [2]	3,471	36	54	897.4	1,017.6	+2.0	55.0	−1.0	95	1	71	28	19	39	45	328	33	56	.83	+.1	.56	7	6.0	n.	22	nw.	15	15	7	8	4.3	.0	.0	2
Boise [1]	2,739	5	49	920.8	1,015.9	+1.0	59.9	−1.3	102	1	75	32	27	45	48	227	32	41	.44	−.1	.28	5	10.2	nw.	36	nw.	5	18	5	7	3.4	.0	.0	1
Pocatello [1]	4,478	5	31	865.2	1,017.3	+2.7	56.2	−3.1	94	1	71	25	28	41	51	305	35	52	1.21	+.5	.70	8	9.7	sw.	34	sw.	5	13	7	10	4.6	T	.0	6
Spokane [1]	1,929	27	42	947.9	1,015.9	+.7	56.6	−2.6	91	1	69	32	27	44	41	266	40	61	2.24	+1.3	.71	10	6.7	ne.	26	w.	20	9	8	13	5.9	.0	.0	1
Walla Walla	991	57	65	981.4	1,016.6	+.7	62.6	−1.2	90	1	74	39	27	52	33	136	.....	.....	2.09	+1.1	.87	7	4.9	s.	24	w.	20	12	9	9	4.5	.0	.0	1
Yakima	1,076	58	67	978.0	1,016.6	.....	62.0	+.9	91	13	75	36	28	49	36	136	.....	.....	T	−.5	T	0	6.1	nw.	24	nw.	17	15	8	7	3.9	.0	.0	0
NORTH PACIFIC COAST							59.2	+0.1										74	3.21	+1.0									5.3			
North Head	211	5	55	1,011.9	1,018.6	+1.7	55.4	−1.1	75	9	60	46	26	51	23	288	51	88	4.93	+1.9	2.81	14	12.2	n.	44	s.	3	9	8	13	5.9	.0	.0	0
Seattle [2]	125	90	321	1,014.2	1,018.6	+2.3	59.4	−.9	82	12	67	43	26	52	25	171	50	76	3.46	+1.7	1.05	9	7.5	n.	25	se.	4	9	8	13	6.0	.0	.0	0
Tacoma	194	172	201	1,011.9	1,018.3	+1.7	57.0	−.3	77	12	65	41	27	50	24	237	.....	.....	3.84	+1.8	2.13	11	7.4	n.	30	sw.	20	7	11	12	5.8	.0	.0	0
Tatoosh Island	86	9	61	1,015.9	1,019.0	+2.7	52.4	−.6	65	12	57	43	26	48	16	380	50	91	4.74	+.1	1.60	12	11.0	s.	44	s.	4	7	7	16	6.5	.0	.0	0
Medford [1]	1,329	29	58	969.9	1,016.6	.....	64.4	+.9	100	12	83	34	26	45	53	95	41	52	.46	−.2	.28	4	.....	n.	.....	.....	..	18	7	5	3.1	.0	.0	0
Portland, Oreg. [2]	154	68	106	1,013.2	1,018.3	+1.4	62.5	+.8	92	12	72	42	26	53	32	111	50	72	3.99	+2.0	2.07	9	6.6	nw.	19	w.	15	7	12	11	5.8	.0	.0	0
Roseburg	510	45	76	999.7	1,018.0	+1.4	63.2	+.3	95	12	78	38	27	48	47	106	48	62	1.07	−.2	.60	6	4.4	n.	22	sw.	41	6	6	8	4.1	.0	.0	0
MIDDLE PACIFIC COAST							67.0	+2.2										58	0.29	−0.4									2.8			
Eureka	60	72	88	1,015.6	1,017.6	+1.3	55.0	−.9	79	28	61	43	26	49	30	296	50	84	1.09	+.1	.95	4	6.8	n.	30	n.	16	14	7	9	4.2	.0	.0	0
Red Bluff	353	5	26	999.7	1,011.9	.....	77.4	+4.3	111	12	93	50	23	62	44	5	36	27	.02	−.8	.02	1	8.7	nw.	29	nw.	16	24	4	2	2.0	.0	.0	1
Sacramento	66	92	115	1,009.8	1,011.5	−.7	72.9	+3.6	102	9	89	46	23	57	40	13	46	46	.00	−.4	.00	0	7.2	s.	24	nw.	27	25	5	0	1.3	.0	.0	0
San Francisco [2]	155	112	132	1,008.5	1,013.5	−.4	62.6	+1.7	85	28	69	51	1	56	26	112	51	74	.04	−.4	.02	2	9.0	w.	25	w.	3	13	10	7	3.9	.0	.0	0
SOUTH PACIFIC COAST							73.4	+3.6										60	0.01	−0.1									3.1			
Fresno [1]	327	5	34	999.7	1,010.5	−1.0	75.5	+3.5	106	13	93	46	24	58	42	4	48	44	T	−.2	T	0	5.4	nw.	18	nw.	22	26	2	2	1.8	.0	.0	0
Los Angeles	338	223	250	1,000.7	1,012.5	+.6	73.2	+4.2	96	3	83	54	23	63	27	2	56	63	T	−.2	T	0	5.7	w.	17	w.	10	18	8	4	3.3	.0	.0	0
San Diego [1]	87	20	55	1,009.1	1,011.9	−.3	71.4	+3.2	90	4	79	55	24	64	32	1	60	72	.03	.0	.03	1	6.0	nw.	16	nw.	4	14	9	7	4.2	.0	.0	1
WEST INDIES																																		
San Juan, P. R.	82	10	54	1,011.2	1,014.6	.....	79.8	−.7	88	17	84	72	29	76	15	0	74	84	6.69	+.8	1.50	25	10.1	e.	28	e.	28	1	9	20	8.2	.0	.0	8
PANAMA CANAL																																		
Balboa Heights	118	6	92	.....	[3]1,010.2	+.4	81.2	+.7	91	4	87	71	8	75	16	0	75	[3]86	5.14	−3.0	1.89	21	5.1	nw.	20	nw.	13	3	15	12	6.8	.0	.0	6
Cristobal	27	47	97	.....	[3]1,010.2	.0	82.0	+1.2	92	29	88	73	22	76	15	0	75	[3]83	11.58	−1.0	3.63	23	6.1	s.	23	e.	5	1	10	19	7.8	.0	.0	15
ALASKA																																		
Anchorage [1]	132	6	44	1,007.1	1,012.2	.....	46.6	−1.2	63	27	55	26	19	38	34	549	40	75	2.70	+.1	.63	16	5.3	n.	25	s.	15	6	4	20	7.2	.0	.0	0
Fairbanks [1]	455	5	63	994.9	1,012.2	.....	43.2	−.5	60	2	53	23	18	33	30	654	38	72	1.48	+.2	.41	14	5.8	n.	27	w.	6	3	3	24	7.8	.0	.0	0
Juneau [1]	80	6	30	1,013.2	1,016.3	.....	48.4	.....	60	3	54	30	21	43	26	498	44	75	7.31	.....	1.48	24	9.2	se.	31	se.	11	1	3	26	8.7	.0	.0	0
Nome	22	25	56	1,009.5	1,010.2	.....	43.0	+1.3	55	2	49	26	9	37	20	660	40	84	3.33	+.6	1.04	20	9.5	ne.	33	e.	20	2	3	25	8.4	T	.0	0
Barrow	29	5	27	1,015.2	1,015.6	.....	28.8	−2.1	44	18	32	18	15	25	17	1,086	28	96	.23	−.3	.15	8	13.0	e.	32	.....	28	2	5	23	8.3	2.6	.2	0
Cordova	45	5	32	1,010.5	1,012.2	.....	46.7	.....	63	10	55	27	17	39	31	557	42	82	10.67	.....	1.80	19	.....	e.	.....	.....	..	1	9	20	8.0	.0	.0	1
Gambell	32	5	32	1,008.1	1,009.1	.....	41.4	−.2	50	21	44	34	8	38	11	708	38	90	1.63	−.5	.47	14	16.0	ne.	36	se.	22	1	1	28	9.0	.0	.0	0
Ketchikan	75	69	90	1,016.9	1,017.6	.....	52.3	−1.4	64	20	58	41	27	47	17	383	46	82	17.15	+5.0	5.63	19	6.3	se.	24	se.	9	3	1	26	8.6	.0	.0	0
Kotzebue	20	5	31	1,011.2	1,011.5	.....	41.6	+8	54	1	47	30	8	36	17	704	38	84	.75	−.1	.27	13	12.6	e.	39	se.	20	4	7	19	7.3	T	.0	0
HAWAII																																		
Honolulu	38	86	100	.....	1,015.2	.....	78.1	.0	85	22	83	71	24	73	...	0	.....	...	1.14	−.1	.69	16	9.1	ne.	24	ne.	2	5	23	2	.....	.0	.0	0

[1] Data are airport records.
[2] Barometric data (adjusted to old city elevation) and hygrometric data from airport; otherwise city office records.
[3] Observations taken hourly.
[4] Pressure (adjusted to old city elevation), temperature, and hygrometric data from airport; otherwise city office records.
[5] Temperature and precipitation from city records, other data from airport.

NOTE.—Except as indicated by notes [1], [2], [4], and [5] data in table are city office records.

SEVERE LOCAL STORMS FOR SEPTEMBER 1945

[The table herewith contains such data as has been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the UNITED STATES METEOROLOGICAL YEARBOOK]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Jackson and Clinton Counties, Iowa.	1	P. m.			$500,000	Heavy hail and high wind.	In Jackson County, from La Motte through Springbrook to Preston, in a strip about a mile wide and nearly 20 miles long, there was much crop loss, some fields totally lost. From Preston the line of damage extended in Jackson County past Goose Lake to Elvira. Damage in this section was more spotted and less complete. In Preston windows were broken in nearly every home, and hundreds of chickens were killed by hail. High winds added to the damage by blowing the hailstones against windows, and at one place a barn was unroofed.
Spring Grove, Minn.	1	3:30 p. m., C. W. T.	[1] 1		10,000	Thunderstorm and hail.	Loss in growing crops, mostly corn, from 40 to 90 percent. Storm moved from northwest to southeast over a path 6 miles long.
Bedford, Va.	1	5:30 p. m.			5,000	Wind, electrical.	Many trees blown down or broken; several small houses slightly damaged, and electric and telephone service interrupted for several hours.
Gilmer County and eastern section of Jackson County, W. Va.	1–2				165,000	Heavy rain and flood	Considerable damage to bridges on secondary roads, and buildings, and loss in crops. $15,000 damage in the Cedarville area and $150,000 in Jackson County.
Salt Lake City, Utah, vicinity of.	2	P. m.			1,000	Heavy rain and flash flood.	Damage to highways and other installations.
Bryce Canyon, Utah	2				1,300	Rain and hail	4 inches of rain fell in 13 minutes. Damage to park roads and erosion-control dams.
Butte, Mont.	8	10:28 a. m.-9:27 p. m.				Wind	Wind averaged about 35 miles per hour, with maximum velocities of 57 miles per hour. Some damage to trees and shrubbery; light structural damage mostly to flimsy sheds and garages. Some signs and board fences also blown down or damaged.
La Porte, Ind., vicinity of.	9				1,500	Hail	Loss principally to corn crop.
Pima County, Ariz.	9			10	26,000	Thunderstorm	A storm of cloudburst proportions filled to overflowing the banks of an ordinary dry wash. Flood waters washing down this dry wash tore a 15-foot gap in a bridge on the highway approximately 4 miles south of Tucson. 4 automobiles plunged into the raging torrent; 10 persons were drowned, while 4 others struggled out of the flood waters.
Hastings Dam and Red Wing, Minn.	10–11				81,000	Rain	At Hastings Dam 8.34 inches of rain fell in a little over 24 hours; at Red Wing 6.60 inches fell in 24 hours.
Sherman and Hallowell, Kans., and vicinity.	12	3–4 a. m.	[1] 8		4,500	Heavy hail	Principal damage to buildings; loss in crops and fruit not estimated. Path 15 miles long.
Florida, southern and central portions.	15–16			4	54,115,000	Tropical hurricane	The path of greatest destruction was about 40 miles wide, and the towns of South Miami, Perrine, Goulds, Kendall, Princeton, Redlands, Richmond, Homestead, and Florida City lay within this area. Losses were heavy for the avocado and lime growers in Dade County and to the citrus crop in Highlands and south Polk counties. Heavy rain caused much loss in truck in the Everglades, and pastures were flooded along the Kissimmee and St. Johns River Valleys. Property damage in Dade County estimated to have been $50,000,000. The greatest loss was at the Navy Blimp hangars at Richmond, Fla., where damage was estimated at between $30,000,000 to $35,000,000. The citrus loss for the State was about 5 percent.
Virginia, entire state	16–18				40,000	do	Excessive rains throughout the State, except the extreme southwest corner, caused most streams to overflow, and severe floods occurred in some small streams in the south-central counties. Damage to roads, bridges, and dams, $10,000; loss in crops, chiefly corn and hay, $30,000. A few low streets in Norfolk flooded because of wind and high tides; otherwise wind was unimportant.
Gourdin, S. C., vicinity of.	17	7:30 a. m.		1	100,000	Tornado	2 persons injured; property damaged.
Georgia	17					Tropical hurricane	This storm, which was quite severe and accompanied by rain, passed near the coast, causing excessive flooding of fields, with much loss in crops.
Clifton, Ariz., and vicinity.	17				155,000	Heavy rain	Rain of cloudburst proportions resulted in rock and mud slides on mountains surrounding the town. Water and silt covered downtown streets to the depth of 2 to 3 feet, and many stores were flooded, with great loss to their stock. Automobiles parked on the streets were almost buried in the mud and rocks. Estimated damage to highways, streets, buildings, stores, merchandise, and automobiles, etc., totaled around $150,000; other losses, $5,000.
Milwaukee, Wis., vicinity of.	19	7:57 p. m., C. W. T.			10,000	Thundersquall	At Billy Mitchell Field, 2 hangars were destroyed, 2 planes wrecked, and 2 others damaged. Church damaged by lightning.
Pulcifer to Advance, Wis.	19					Wind	2 barns unroofed; machine sheds and a windmill flattened; windows broken and roofs damaged on several homes.
Racine County, Wis.	19				7,000	Electrical	Barn filled with hay and machinery, a silo, and some other small buildings destroyed by lightning.
Wood County, Wis., north-central portion.	19	4–5 p. m., C. W. T.	200	0	25,000	Tornado	A new 50 by 24-foot cinder-block building in north-central Wood County destroyed about 4 p. m. Moving eastward, the funnel cloud apparently lifted and dipped again, 4:45 to 5 p. m., in the southern section of Stevens Point where it ripped off the 2d floor of a 224 by 40-foot frame factory building and scattered the debris for a block to the east, damaging several homes, other buildings, and cars, razing many trees, disrupting utility service, and injuring 2 persons. The path at Stevens Point was about 1,000 yards long.
Salt Lake City, Utah	21					Wind	Much loss in peach and pear crops; property and shade trees damaged.
Minneapolis and St. Paul, Minn.	22	2:50 a. m., C. W. T.			1,600	Electrical and heavy rain.	Number of places struck by lightning; woman injured.
Gessie and Covington, Ind.	22	4 p. m.	880	0	160,000	Tornado	Several buildings destroyed and many damaged. Storm crossed the Wabash River; funnel cloud observed; 1 person injured.
Maple Plain, Minn., and vicinity.	23	2:15 a. m., C. W. T.			2,000	Thundersqualls, heavy rain, and hail.	An aviator injured when his airplane was turned over by the wind, at Victory Airport, Brooklyn Center, Minn. Roof of boathouse torn away; lake cottages and farm buildings damaged; trees uprooted and corn lodged. Storm moved from southwest to northeast over a path about 20 miles long.
Hutchinson, Kans., and vicinity.	23	6 p. m.		0		Tornado	Funnel cloud observed at the northeast edge of Hutchinson city, but not observed to have reached the ground. Small damage reported.
Barber, Pratt, and Reno Counties, Kans.	23	6:30 p. m.	[1] 90	0	250,000	Small tornadoes and high wind.	Loss in crops from soil erosion. 3 funnel clouds observed, not known to have reached the ground.
Spring Grove, Minn., and vicinity.	23	7:45 p. m., C. W. T.	11	1	30,000	Tornadic wind	General direction of the storm from southwest to northeast over a path 6 miles long. Wind described as rotary and straight. Uprooted trees mostly lying on the ground in one direction. Outbuildings and lumber sheds demolished, chimneys toppled, windows broken, roofs and grain elevators damaged, hayrack carried away, corn badly lodged, and wires down. Woman fatally injured.

[1] Miles instead of yards

SEVERE LOCAL STORMS FOR SEPTEMBER 1945—Continued

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Vernon, Crawford, Dodge, Washington, and Grant Counties, Wis.	23	P. m.			$20,700	Thunderstorm and wind squalls.	In Vernon and Crawford Counties, at least 30 tobacco sheds blew down, with estimated damage of 15 to 20 percent in shedded tobacco. A few barns, windmills, and other small buildings were blown down or damaged. Estimated property damage, $5,000; crop loss, $7,500. In southern portions of Dodge and Washington Counties, farm buildings were wrecked or damaged on at least 3 farms; roof on school building damaged; windows broken; trees blown down; utility service disrupted; property loss of $4,000. In Grant County a barn filled with hay and machinery burned, with $4,200 loss.
Chicago, Ill., and vicinity	23			1	2,000	Wind, rain, electrical	A 43 mile-an-hour wind accompanied the storm which caught many persons boating on Lake Michigan, upsetting at least 5 small craft; all occupants were rescued. Approximately 40 families were forced to vacate their homes in Princeton Park when roofs of 10 houses blew off.
La Porte, Ind	23				2,000	Hail and wind	Loss in corn crop.
Des Moines, Knoxville, Attica, Delaware, Dubuque, and Clinton, Iowa.	23				25,000–50,000	do	Utility and car service interrupted. Traffic in large cities, especially in Des Moines, hampered by fallen trees. In the open country some cornfields flattened by wind.
Lancaster, Wis., vicinity of	23				4,000	Electrical	A barn, 35 tons of hay, and farm machinery destroyed.
Syracuse, N. Y., extreme northern section.	25				30,000	Electrical, excessive rain, hail, and tornadic winds.	Telephone and electric power lines broken; trees uprooted and buildings unroofed.
Anadarko, Okla., vicinity of.	25	5 p. m.	[1] 3		25,000	Heavy hail	Property damaged; path 5 miles long.
Geary, Okla., vicinity of	26	6 p. m.	[1] 2		11,000	do	Crop loss chiefly in cotton; path 3 to 5 miles long.
Newcastle and Norman, Okla.	26	P. m.		0	375,000	Tornado	School and several other buildings blown down in Newcastle. $300,000 damage to 150 airplanes at the Norman Naval Base. Loss in corn crop unestimated.
Ensign to Dodge City, Kans., and vicinities.	27	1:33–1:43 p. m.	222	0	6,000	do	Crop and property damage light because storm traveled mostly across open country; path 20 miles long.
Milwaukee, Wis.	28	Noon–near 12 p. m.			25,000	Wind	Strong northeast winds caused waves to overflow breakwater, especially lower section around the South Shore Yacht Club, where waves were 6 feet high inside the breakwater. 70 yachts and other pleasure craft wrecked.
Las Vegas, N. Mex	28–29	P. m.			7,500	Snow	Fruit and shade trees badly damaged.
Sebeka, Minn	30				1,500	Heavy rain	Property damaged.

[1] Miles instead of yards.

SOLAR RADIATION AND SUNSPOT DATA FOR SEPTEMBER 1945

[Solar Radiation Investigation Section, I. F. HAND, in charge]

SOLAR RADIATION OBSERVATIONS

Explanations of the tables and references to descriptions of instruments, stations, and methods of observation, and to summaries of data, are given in the January 1944 MONTHLY WEATHER REVIEW, page 43. A list of the pyrheliometric stations also is given on page 45 of the same review.

TABLE 1.—*Solar radiation intensities during September 1945*

[GRAM CALORIES PER MINUTE PER SQUARE CENTIMETER OF NORMAL SURFACE]

Date	Sun's zenith distance									
	7:30 a. m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	1:30 p. m.
	75th mer. time	Air mass									75th mer. time
		A. M.				*1.0	P. M.				
	e.	5.0	4.0	3.0	2.0		2.0	3.0	4.0	5.0	e.
MADISON, WIS.											
	mb.	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*mb.*
Sept. 6	17.7	0.47	0.54	0.75	0.88	1.26	------	------	------	------	19.6
Sept. 7	22.6	------	------	.69	.84	1.20	------	------	------	------	25.0
Sept. 10	11.8	.83	.95	1.02	1.15	1.29	------	------	------	------	10.6
Sept. 17	11.0	.53	.60	.75	1.03	1.26	------	------	------	------	12.7
Sept. 20	8.7	.77	.88	1.01	1.18	1.40	------	------	------	------	10.2
Sept. 21	8.4	.71	.80	.90	1.13	1.22	------	------	------	------	9.4
Sept. 29	5.3	------	1.02	1.14	1.30	1.40	------	------	------	------	7.8
Means	------	.66	.80	.89	1.07	1.29	------	------	------	------	------
Departures	------	−.07	−.06	−.10	−.07	−.09	------	------	------	------	------
LINCOLN, NEBR.											
Sept. 1	15.3	------	------	0.97	1.08	1.31	------	------	------	------	14.6
Sept. 4	14.6	------	------	.84	1.01	1.23	1.01	0.82	0.69	0.58	16.4
Sept. 6	14.6	------	0.69	.82	.99	1.23	.99	.75	.64	.54	15.3
Sept. 7	14.6	------	0.69	.84	1.03	1.26	------	------	------	------	17.7
Sept. 8	16.4	------	------	1.12	------	------	------	------	------	------	10.6
Sept. 10	8.1	0.79	.92	1.11	1.28	1.40	------	------	------	------	8.7
Sept. 11	8.7	.72	.83	.98	1.17	1.33	------	------	------	------	10.2
Sept. 14	9.1	.79	.90	1.01	1.20	1.35	1.22	1.06	.88	.77	10.2
Sept. 15	8.7	------	.75	.96	1.14	1.31	------	------	------	------	11.4
Sept. 18	15.8	.54	.64	.79	.99	------	------	------	------	------	18.3
Sept. 19	11.0	------	------	------	------	1.42	1.30	1.14	1.01	.90	9.1
Sept. 20	7.2	.85	.98	1.05	1.22	1.40	1.25	1.10	.88	.84	8.7
Sept. 24	9.4	------	------	------	1.22	1.40	------	------	------	------	9.1
Sept. 25	8.7	1.01	1.09	1.18	1.27	------	1.23	------	------	------	9.8
Means	------	.78	.83	.97	1.13	1.33	1.17	.97	.82	.73	------
Departures	------	+.04	−.01	.00	−.01	−.08	+.01	.00	−.01	+.01	------
ALBUQUERQUE, N. MEX.											
Sept. 1	12.7	------	------	------	------	1.50	------	------	------	------	12.7
Sept. 2	9.8	0.81	0.91	1.02	1.16	------	------	------	------	------	9.8
Sept. 3	7.9	.83	.91	------	1.16	1.44	1.25	------	------	------	8.5
Sept. 4	7.9	.74	.85	.94	1.09	1.51	1.22	1.12	0.99	------	7.3
Sept. 5	6.3	.74	------	------	1.11	1.48	1.20	------	------	------	8.2
Sept. 6	6.5	.78	.85	1.01	1.16	1.48	1.08	------	------	------	7.3
Sept. 7	7.6	.65	.72	------	------	------	------	------	------	------	8.8
Sept. 8	8.8	------	------	------	------	------	1.23	1.03	.91	0.74	9.8
Sept. 10	6.5	.74	.86	1.00	1.20	1.53	------	1.05	.93	.81	7.6
Sept. 11	9.5	.81	.93	1.05	1.21	1.47	1.35	1.23	1.12	1.04	7.6

TABLE 1.—*Solar radiation intensities during September 1945*—Con.

Date	Sun's zenith distance									
	7:30 a. m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	1:30 p. m.
	75th mer. time	Air mass									75th mer. time
		A. M.				*1.0	P. M.				
	e.	5.0	4.0	3.0	2.0		2.0	3.0	4.0	5.0	e.
ALBUQUERQUE, N. MEX.—Continued											
	mb.	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*mb.*
Sept. 12	2.3	.94	1.05	1.16	1.25	1.50	1.15	.99	.83	------	4.8
Sept. 13	5.0	.83	.94	1.06	1.22	1.49	1.25	1.06	.94	.82	5.4
Sept. 14	5.0	.68	.82	.95	1.16	1.54	1.17	------	.93	.84	6.3
Sept. 15	3.4	.80	.92	1.03	1.18	1.46	------	------	------	------	5.4
Sept. 17	4.8	.84	.97	1.08	1.22	1.52	1.22	1.06	.95	.85	2.7
Sept. 18	6.3	.75	.86	.99	1.18	------	------	------	------	------	5.2
Sept. 19	6.5	------	------	------	------	------	1.11	------	------	------	6.8
Sept. 20	5.8	------	------	------	------	1.57	------	------	------	------	7.3
Sept. 21	8.2	------	------	------	------	1.55	------	------	------	------	8.2
Sept. 22	8.5	.90	1.01	1.12	1.28	1.54	1.26	1.10	.97	.88	4.8
Sept. 23	5.2	.94	1.03	1.16	1.32	------	1.34	1.18	1.06	.95	4.8
Sept. 24	4.2	.99	1.08	1.15	1.31	1.53	1.32	1.16	1.07	.98	5.8
Sept. 25	3.6	1.01	1.09	1.20	1.32	------	1.32	1.16	1.05	.97	5.0
Sept. 26	2.6	1.00	1.08	1.20	1.34	------	------	------	1.11	1.01	4.4
Sept. 27	3.3	------	------	------	------	------	------	------	.93	.82	3.0
Sept. 28	4.8	1.01	1.08	1.17	1.30	------	1.18	.88	.68	------	4.6
Sept. 30	6.0	------	------	------	------	------	1.20	1.05	.88	------	5.8
Means	------	.84	.95	1.08	1.22	1.51	1.23	1.08	.96	.89	------
Departures	------	.00	−.01	.00	.00	+.02	−.03	−.03	−.04	−.04	------
BLUE HILL, MASS.											
Sept. 1	22.6	------	------	------	------	------	------	------	------	0.94	25.2
Sept. 3	13.7	0.94	1.00	1.07	1.21	------	1.27	1.11	0.98	.90	11.4
Sept. 4	11.0	------	------	------	------	------	1.14	.97	.83	.73	14.2
Sept. 5	12.4	.48	.58	.75	.95	------	.82	.64	.48	.35	17.1
Sept. 6	15.7	.28	.38	.52	.68	------	------	------	------	------	21.3
Sept. 7	16.7	.40	.51	.66	.89	------	.87	.59	.46	.37	23.5
Sept. 8	19.4	.56	.66	.84	1.06	------	------	.83	------	------	19.7
Sept. 10	19.8	------	------	------	------	------	1.07	------	------	------	24.3
Sept. 12	18.0	------	------	------	------	------	------	------	------	.60	17.1
Sept. 13	12.3	------	------	------	------	------	------	.86	.67	.54	14.0
Sept. 14	15.4	.46	------	------	------	------	------	------	------	------	17.3
Sept. 21	16.5	------	------	------	------	------	1.15	.94	.74	.64	8.9
Sept. 22	8.9	.92	1.02	1.12	1.28	1.50	1.32	1.16	1.05	.95	9.0
Sept. 23	10.2	------	------	------	------	------	------	------	------	.66	12.2
Sept. 25	21.4	------	------	------	------	------	------	------	.51	.42	25.8
Sept. 27	11.2	.81	------	------	------	------	------	------	------	------	14.6
Sept. 29	22.9	------	------	------	1.04	------	------	------	------	------	24.0
Sept. 30	6.6	------	1.04	1.14	------	1.49	1.37	1.20	1.06	.95	6.1
Means	------	.61	.74	.87	1.01	(1.50)	1.13	.92	.75	.67	------
Departures	------	−.17	−.14	−.13	−.12	+.12	.00	−.02	−.04	.00	------
BOSTON, MASS.											
Sept. 4	11.0	0.71	------	------	------	------	1.11	------	------	------	14.2
Sept. 5	12.7	------	------	------	------	1.06	.76	------	------	------	16.5
Sept. 9	19.0	0.36	0.52	0.63	0.87	1.02	------	------	------	------	17.7
Means	------	(0.54)	(0.52)	(0.63)	(0.87)	(1.04)	(0.94)	------	------	------	------
Departures	------	.00	.00	−.25	−.17	−.22	.00	------	------	------	------
RATIO, BOSTON/BLUE HILL, ON COMPARABLE DATES											
	------	------	------	------	------	------	(0.96)	------	------	------	------

*Extrapolated.

TABLE 2.—*Daily totals and weekly means of solar radiation (direct + diffuse) received on a horizontal surface*
[Gram calories per square centimeter]

Date	Washington, D.C.	Madison, Wis.	Lincoln, Nebr.	East Lansing, Mich.	New York, N.Y.	Fresno, Calif.	Fairbanks, Alaska	Columbia, Mo.	Boston, Mass.	Nashville, Tenn.	Twin Falls, Idaho	La Jolla, Calif.	Riverside, Calif.	Blue Hill, Mass.	Newport, R. I.	State College, Pa.	Put-in-Bay, Ohio	East Wareham, Mass.	Davis, Calif.	Boulder, Colo.	Toodle, Utah	New Orleans, La.	Toronto, Canada
1945	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*	*Cal.*
Sept. 3	427	412	412	437	525	537	260	531	569	557	278	557	572	574	445	458	530	546	568	519	540	620	563
Sept. 4	439	540	463	444	537	554	182	600	471	573	352	553	566	526	444	446	557	470	603	483	579	633	456
Sept. 5	496	528	218	435	424	565	231	562	447	323	536	414	585	512	483	534	535	506	576	473	572	228	443
Sept. 6	310	565	479	463	365	576	112	437	380	550	527	476	559	460	449	553	553	476	609	424	590	408	444
Sept. 7	244	491	464	321	334	547	242	251	429	506	547	277	575	479	451	506	470	479	602	493	710	543	407
Sept. 8	364	379	518	333	408	538	260	544	468	392	542	135	241	498	450	317	411	470	518	584	665	184	335
Sept. 9	375	515	158	421	393	509	258	538	259	546	550	450	492	398	351	286	519	297	563	553	700	263	282
Means	379	490	387	408	427	546	221	495	432	492	476	409	513	492	439	443	511	463	577	504	622	411	419
Departures	−12	+110	−52	+68	+60	−14	+9	+3	+84	+99	−31	−75	+24	+114	+17	+56	+98	+74	+3	+18	−15	−12	-----
Sept. 10	400	480	487	186	337	514	233	574	206	170	533	514	530	289	346	406	232	347	540	559	687	398	407
Sept. 11	335	227	456	249	141	517	105	574	191	573	516	517	527	238	348	386	323	386	522	472	667	370	398
Sept. 12	534	273	168	178	499	514	106	42	281	444	529	478	518	346	302	487	264	283	490	479	635	185	229
Sept. 13	438	489	431	132	367	503	------	26	421	188	504	317	511	485	461	449	328	484	472	587	646	350	402
Sept. 14	321	79	521	310	69	502	96	78	162	476	413	380	487	225	279	128	324	348	510	402	545	639	144
Sept. 15	159	287	492	307	116	502	80	560	207	85	454	419	509	213	217	329	284	169	506	322	502	624	321
Sept. 16	249	555	408	416	379	505	123	554	418	521	492	457	467	468	419	482	290	460	540	214	638	618	492
Means	348	341	423	254	273	508	124	344	282	351	492	440	507	323	339	381	292	354	511	434	617	455	342
Departures	−29	−1	+5	−48	−82	−20	−76	−58	−21	−11	+17	−15	+46	−45	−44	+7	−80	+5	−27	−36	+25	+88	-----
Sept. 17	35	495	167	370	41	513	195	573	169	512	361	366	436	185	128	61	250	158	542	442	619	461	293
Sept. 18	177	408	466	116	19	509	329	526	88	456	497	276	95	112	83	50	85	121	503	345	334	136	27
Sept. 19	355	284	435	202	162	512	304	337	188	375	490	283	394	189	228	88	112	209	509	435	616	526	79
Sept. 20	372	531	491	331	79	489	199	504	90	468	219	240	243	117	100	377	150	126	443	532	544	303	125
Sept. 21	423	463	392	417	463	214	31	103	383	419	67	240	188	444	432	496	343	424	468	473	152	404	430
Sept. 22	518	104	412	276	504	526	92	240	422	469	285	435	497	499	482	496	368	508	494	497	511	501	455
Sept. 23	120	334	438	246	118	527	50	336	307	246	349	518	522	281	231	90	360	352	519	412	605	551	92
Means	286	374	400	280	198	470	172	374	235	421	324	337	339	261	241	237	239	271	497	448	483	412	214
Departures	−81	+21	−5	−10	−130	−18	+9	+43	−38	+75	−107	−74	−125	−90	−105	−121	−96	−54	−14	+22	−38	+66	-----
Sept. 24	128	385	321	93	231	519	175	31	89	220	464	502	512	119	215	228	243	197	522	467	601	275	228
Sept. 25	438	452	450	36	212	511	228	168	317	100	367	504	503	281	157	431	78	205	508	476	592	485	55
Sept. 26	367	201	116	315	245	498	137	311	222	315	355	427	439	214	247	234	461	238	526	434	439	444	408
Sept. 27	219	260	50	197	260	486	63	147	306	364	449	455	469	340	411	133	116	404	524	60	356	404	229
Sept. 28	418	88	30	49	132	477	43	58	36	329	451	480	523	79	97	406	190	93	512	169	584	415	174
Sept. 29	372	440	329	256	317	486	177	95	266	349	446	489	510	310	327	161	50	375	481	208	566	159	173
Sept. 30	102	136	36	190	399	463	49	104	381	365	434	478	482	447	373	446	186	359	458	57	571	394	362
Means	292	280	190	164	256	491	124	130	231	292	424	477	491	256	261	292	189	267	504	267	530	368	233
Departures	−54	−18	−165	−113	−56	+37	−7	−130	−53	−38	−10	+94	+43	−88	−82	−24	−132	−55	+20	−89	+59	−7	-----
ACCUMULATED DEPARTURES ON SEPTEMBER 30, 1945																							
	+2,044	+9,758	−6,790	−5,124	−8,267	+455	−3,619	------	−2,345	−938	−9,156	−15,148	+5,474	−6,678	−9,317	+2,555	+266	−1,050	−980	------	------	------	-----

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR SEPTEMBER 1945

By Lucy T. Day

[Equatorial Division, U. S. Naval Observatory]

Communicated by Commodore J. F. Hellweg, U. S. N. (Ret.), Superintendent, U. S. Naval Observatory.] All measurements and spot counts were made at the Naval Observatory from plates taken at the observatories indicated. Difference in longitude is measured from the central meridian, positive toward the west. Latitude is positive toward the north. Areas are corrected for foreshortening and expressed in millionths of Sun's hemisphere. For each day, under longitude, latitude, area of spot or group, and spot count are included assumed longitude of center of the disk, assumed latitude of center of the disk, total areas of spots and groups, and total spot count]

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1945	h m		°	°	°	°				
Sept. 1	10 10	7834	−76	132	−17	78	242	1	F	U. S. Naval.
		7833	−57	151	−23	63	36	2		
		7833	−52	156	−22	58	61	6		
		7830	−4	204	−15	22	12	3		
		7832	+59	267	−20	64	36	2		
				(208)	(+7)		387	14		
2	10 37	7834	−62	133	−17	67	218	1	G	Do.
		7833	−44	151	−21	52	6	1		
		7833	−39	156	−21	47	61	1		
		(*)	+9	204	−8	18	12	1		
		7832	+70	265	−21	73	194	1		
				(195)	(+7)		491	5		
3	10 15	7836	−74	108	−14	77	6	1	F	Do.
		7834	−49	133	−18	55	36	1		
		7833	−25	157	−22	38	36	2		
		7835	+15	197	+31	28	6	3		
				(182)	(+7)		84	7		
4	10 18	7836	−61	108	−15	65	6	2	G	Do.
		7834	−35	134	−17	42	218	1		
				(169)	(+7)		224	3		
5	10 57	7838	−80	75	+25	80	12	1	G	Do.
		7838	−79	76	+23	79	12	1		
		7838	−76	79	+23	76	194	1		
		7834	−21	134	−17	33	218	1		
		7837	−15	140	−20	31	24	3		
		7835	+39	194	+29	44	6	1		
		(*)	+50	205	−24	58	12	1		
				(155)	(+7)		478	9		
6	13 22	7839	−78	62	−28	82	24	2	F	Do.
		7838	−67	73	+25	68	145	4		
		7838	−60	80	+23	61	48	2		
		7838	−59	81	+22	59	73	1		
		7838	−58	82	+23	59	24	1		
		7834	−6	134	−16	24	170	5		
		7837	+2	142	−18	26	24	3		
		7835	+50	190	+30	52	12	2		
				(140)	(+7)		520	20		
7	14 46	7839	−63	63	−26	70	24	1	F	Do.
		7838	−52	74	+26	54	85	2		
		7838	−46	80	+25	48	133	5		
		7834	+7	133	−16	24	145	3		
		7837	+16	142	−19	31	36	4		
				(126)	(+7)		423	15		
8	10 29	7839	−51	65	−27	60	24	1	G	Do.
		7838	−42	74	+25	44	73	2		
		7838	−36	80	+24	40	121	5		
		7834	+17	133	−16	29	121	3		
		7840	+26	142	−22	38	6	1		
		7837	+34	150	−21	44	12	2		
				(116)	(+7)		357	14		
9	9 8	7839	−42	61	−29	54	16	1	VG	Mt. Wilson.
		7839	−40	63	−28	52	16	1		
		7838	−28	75	+25	33	24	2		
		7838	−24	79	+25	29	48	9		
		7841	−1	102	+26	19	12	2		
		7834	+30	133	−16	37	36	1		
		7834	+32	135	−17	40	97	4		
		7840	+40	143	−23	50	6	1		
		7840	+43	146	−22	52	12	1		
				(103)	(+7)		267	22		
10	10 41	(*)	−81	8	+22	81	12	1	G	U. S. Naval.
		7839	−30	59	−28	46	24	2		
		7838	−14	75	+24	21	24	2		
		7838	−13	76	+24	21	12	3		
		7841	+13	102	+26	23	12	3		
		7842	+23	112	−14	30	24	3		
		7834	+45	134	−16	50	61	4		
		7840	+55	144	−24	61	48	2		
				(89)	(+7)		217	20		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR SEPTEMBER 1945—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1945	h m		°	°	°	°				
11	11 29	7839	−15	60	−29	40	24	3	F	U. S. Naval.
		(*)	−11	64	−16	25	16	1		
		7838	−2	73	+24	18	12	2		
		7838	−0	75	+24	17	12	1		
		7842	+33	108	−14	38	12	2		
		7834	+60	135	−16	64	48	1		
				(75)	(+7)		124	10		
12	12 3	7843	−38	24	−26	50	24	3	F	Do.
		7839	−3	59	−29	38	36	2		
		7842	+44	106	−16	49	6	2		
				(62)	(+7)		66	7		
13	10 9	7839	+8	58	−29	37	24	2	G	Do.
		7839	+12	62	−28	38	12	7		
		(*)	+45	95	+25	47	6	1		
		(*)	+52	102	+23	53	6	2		
				(50)	(+7)		48	12		
14	10 48	7839	+22	58	−28	41	12	4	G	Do.
		(*)	+63	99	+24	64	12	2		
				(36)	(+7)		24	6		
15	9 5	(*)	−73	311	−22	76	12	3	G	Mt. Wilson.
		7839	+36	60	−27	49	6	1		
				(24)	(+7)		18	4		
16	9 24	7844	+12	23	−26	35	12	3	G	Do.
		7839	+52	63	−27	61	6	1		
				(11)	(+7)		18	4		
17	9 23	7846	−57	300	−22	62	6	1	G	Do.
		7846	−54	303	−23	61	12	2		
		7845	+45	42	+28	48	12	3		
		7839	+66	63	−28	71	12	3		
				(357)	(+7)		42	9		
18	9 25	7846	−37	307	−24	48	12	2	F	Do.
				(344)	(+7)		12	2		
19	10 18	7846	−28	303	−24	42	24	3	F	U. S. Naval.
		7846	−23	308	−24	38	48	1		
				(331)	(+7)		72	4		
20	10 43	7847	−22	295	+28	30	6	1	G	Do.
		7847	−21	296	+27	29	6	1		
		7846	−15	302	−24	35	24	4		
		7846	−10	307	−24	33	48	2		
				(317)	(+7)		84	8		
21	10 27	7847	−8	296	+27	22	12	5	G	Do.
		7847	−6	298	+27	21	24	2		
		7846	−1	303	−23	30	6	3		
		7846	+5	309	−25	33	24	1		
				(304)	(+7)		66	11		
22	10 10	7848	−13	278	−17	28	36	4	G	Do.
		7848	−12	279	−20	30	48	10		
		7848	−11	280	−19	28	73	3		
		7847	+2	293	+26	19	61	9		
		7847	+4	295	+25	18	48	4		
		7847	+7	298	+25	20	36	5		
		7846	+17	308	−24	35	36	3		
		(*)	+26	317	+24	30	36	3		
				(291)	(+7)		374	41		
23	9 50	7850	−78	200	+28	78	48	1	G	Mt. Wilson.
		7848	+1	279	−20	27	388	32		
		7848	+7	285	−19	26	242	1		
		7847	+17	295	+27	26	48	10		
		7847	+21	299	+27	28	73	12		
		7846	+31	309	−24	44	12	1		
		7849	+42	320	+25	43	12	1		
				(278)	(+7)		823	58		
24	14 53	7850	−64	198	+27	64	24	1	G	U. S. Naval.
		7848	+13	275	−20	30	485	12		
		7848	+20	282	−20	33	485	4		
		7847	+28	290	+27	32	24	6		
		7847	+33	295	+26	37	145	14		
		7846	+15	307	−26	55	6	1		
		7849	+55	317	+24	56	6	2		
				(262)	(+7)		1,175	40		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR SEPTEMBER 1945—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1945	h m		°	°	°	°				
25	10 25	7850	−50	201	+28	51	24	1	VG	U. S. Naval.
		7848	+22	273	−21	36	533	7		
		7848	+31	282	−20	41	533	4		
		7847	+40	291	+27	43	24	3		
		7847	+44	295	+26	47	97	6		
		7847	+45	296	+25	46	170	18		
		7846	+57	308	−27	65	6	1		
		7849	+67	318	+24	67	6	1		
				(251)	(+7)		1,393	41		
26	10 9	7850	−38	200	+27	41	12	2	G	Do.
		7848	+33	271	−21	43	436	10		
		7848	+43	281	−19	50	509	7		
		7847	+52	290	+27	54	97	13		
		7847	+61	299	+24	61	194	1		
		7847	+61	299	+25	61	73	9		
				(238)	(+7)		1,321	42		
27	12 1	7851	−82	142	−22	84	388	1	F	Do.
		7848	+48	272	−21	54	339	5		
		7848	+58	282	−19	63	509	2		
		7847	+67	291	+27	67	48	6		
		7847	+78	302	+25	78	194	1		
		7847	+79	303	+29	79	73	3		
				(224)	(+7)		1,551	18		
28	10 26	7853	−73	139	+23	73	24	1	G	Do.
		7851	−69	143	−22	74	436	1		
		7852	−20	192	+21	24	61	12		
		7848	+61	273	−21	66	194	3		
		7848	+61	273	−23	68	97	1		
		7848	+70	282	−19	73	533	1		
		7847	+80	292	+27	80	24	1		
				(212)	(+7)		1,369	20		
29	10 45	7854	−82	116	−18	83	145	1	VG	Do.
		7853	−60	138	+23	60	73	2		
		7853	−57	141	+22	58	97	5		
		7851	−56	142	−22	61	436	1		
		7853	−55	143	+22	56	97	7		
		7853	−53	145	+22	54	97	1		
		7852	−8	190	+20	15	97	6		
		7852	−6	192	+21	16	12	1		
		7852	−4	194	+19	13	24	1		
		7848	+71	269	−21	74	145	1		
		7848	+75	273	−23	78	73	1		
				(198)	(+7)		1,296	27		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR SEPTEMBER 1945—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1945	h m		°	°	°	°				
30	9 17	7854	−71	115	−19	74	61	1	G	Mt. Wilson.
		7854	−69	117	−18	72	97	1		
		7856	−59	127	−22	64	170	1		
		7856	−56	130	−22	61	48	2		
		7856	−55	131	−22	60	97	1		
		7853	−49	137	+24	51	206	1		
		7853	−45	141	+23	47	145	9		
		7851	−42	144	−21	50	388	1		
		7853	−41	145	+24	43	339	1		
		7852	+4	190	+21	15	61	1		
		7852	+5	191	+22	16	36	2		
		7852	+8	194	+20	15	12	1		
		7855	+30	216	−17	38	12	1		
		7855	+32	218	−16	39	16	1		
				(186)	(+7)		1,688	24		

Mean daily area for 30 days = 500

*Not numbered.
VG = very good; G = good; F = fair; P = poor.

PROVISIONAL RELATIVE SUNSPOT NUMBERS FOR SEPTEMBER 1945

[Based on observations at Zurich except as indicated by an asterisk. Data furnished through the courtesy of Prof. W. Brunner, Swiss Federal Observatory, Zurich, Switzerland]

September 1945	Relative numbers	September 1945	Relative numbers	September 1945	Relative numbers
1	37	11	38	21	17
2	41	12	23	22	41
3	26	13	9	23	66
4	31	14	16	24	77
5	25	15	0	25	57
6	46	16	7	26	53
7	39	17	19	27	35
8	47	18	8	28	55
9		19	13	29	49
10	42	20	20	30	91

Mean, 29 days = 35.5

Chart I. Departure (°F.) of the Mean Temperature from the Normal, and Wind Roses for Selected Stations, September 1945

Chart I. Departure (°F.) of the Mean Temperature from the Normal, and Wind Roses for Selected Stations, September 1945

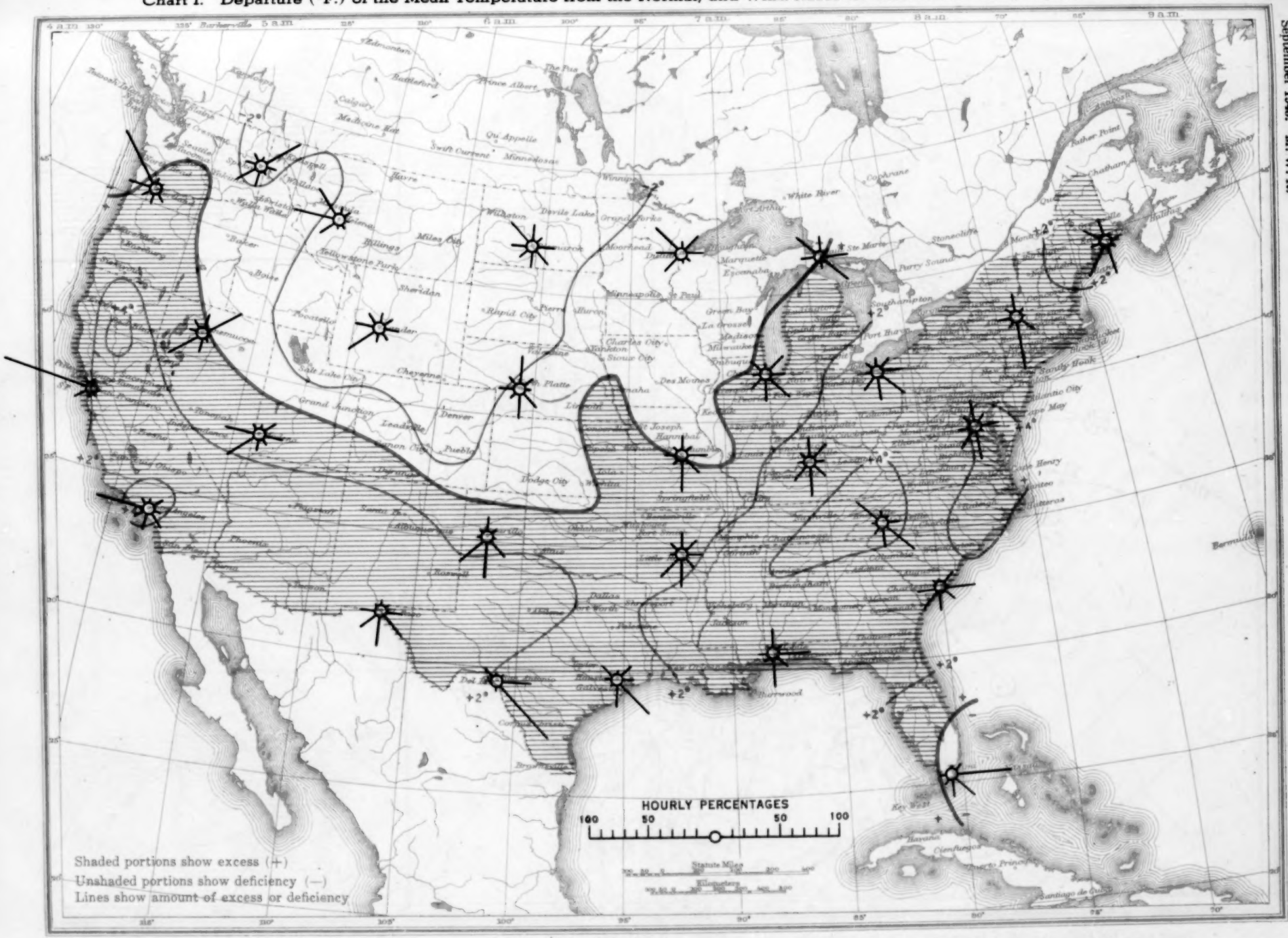
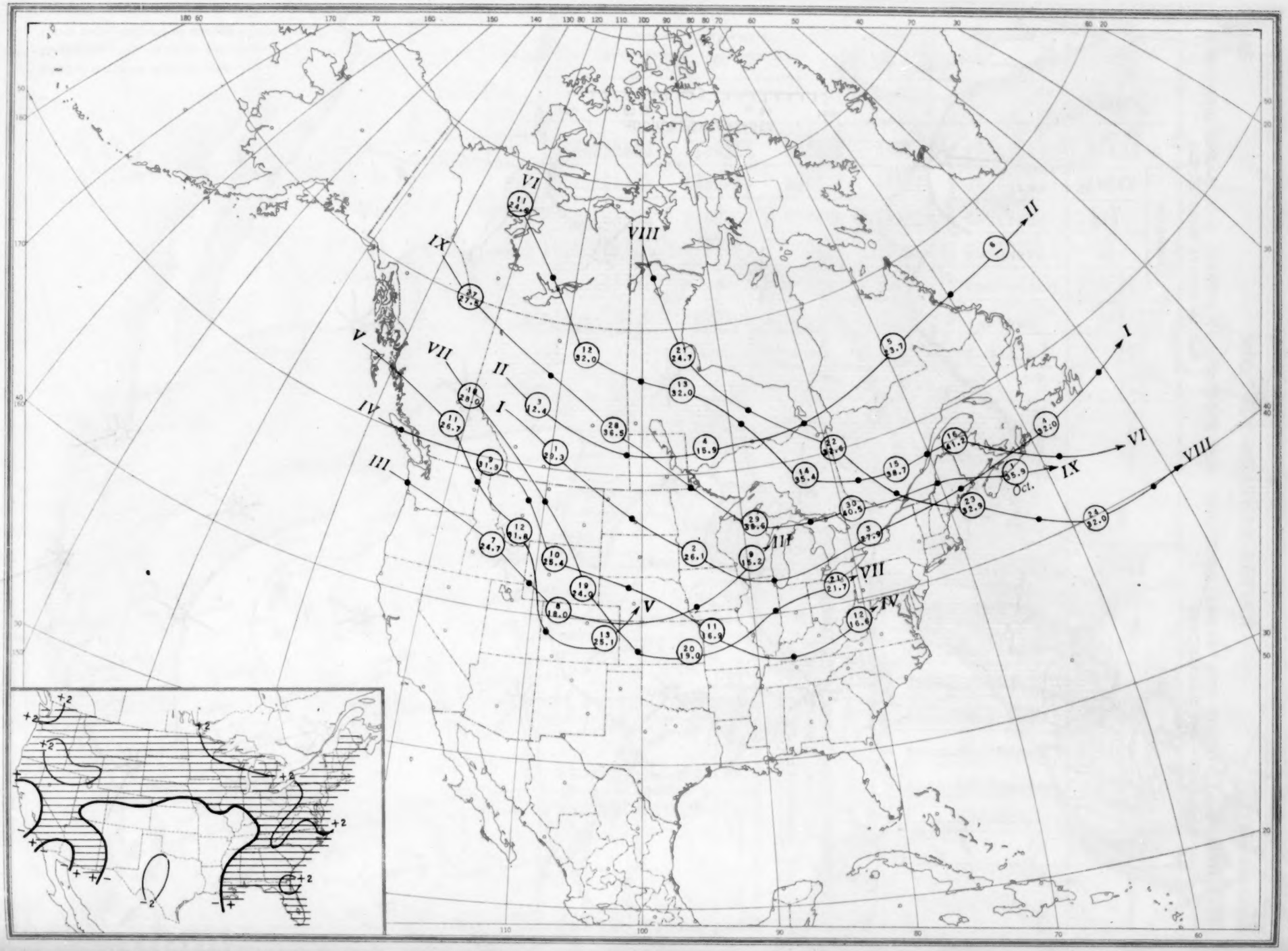


Chart II. Tracks of Centers of Anticyclones, September 1945. (Inset) Departure of Monthly Mean Pressure from Normal

(Plotted by D. R. Harris)



Circle indicates position of anticyclone at 7:30 a. m. (75th meridian time), with barometric reading. Dot indicates position of anticyclone at 7:30 p. m. (75th meridian time)

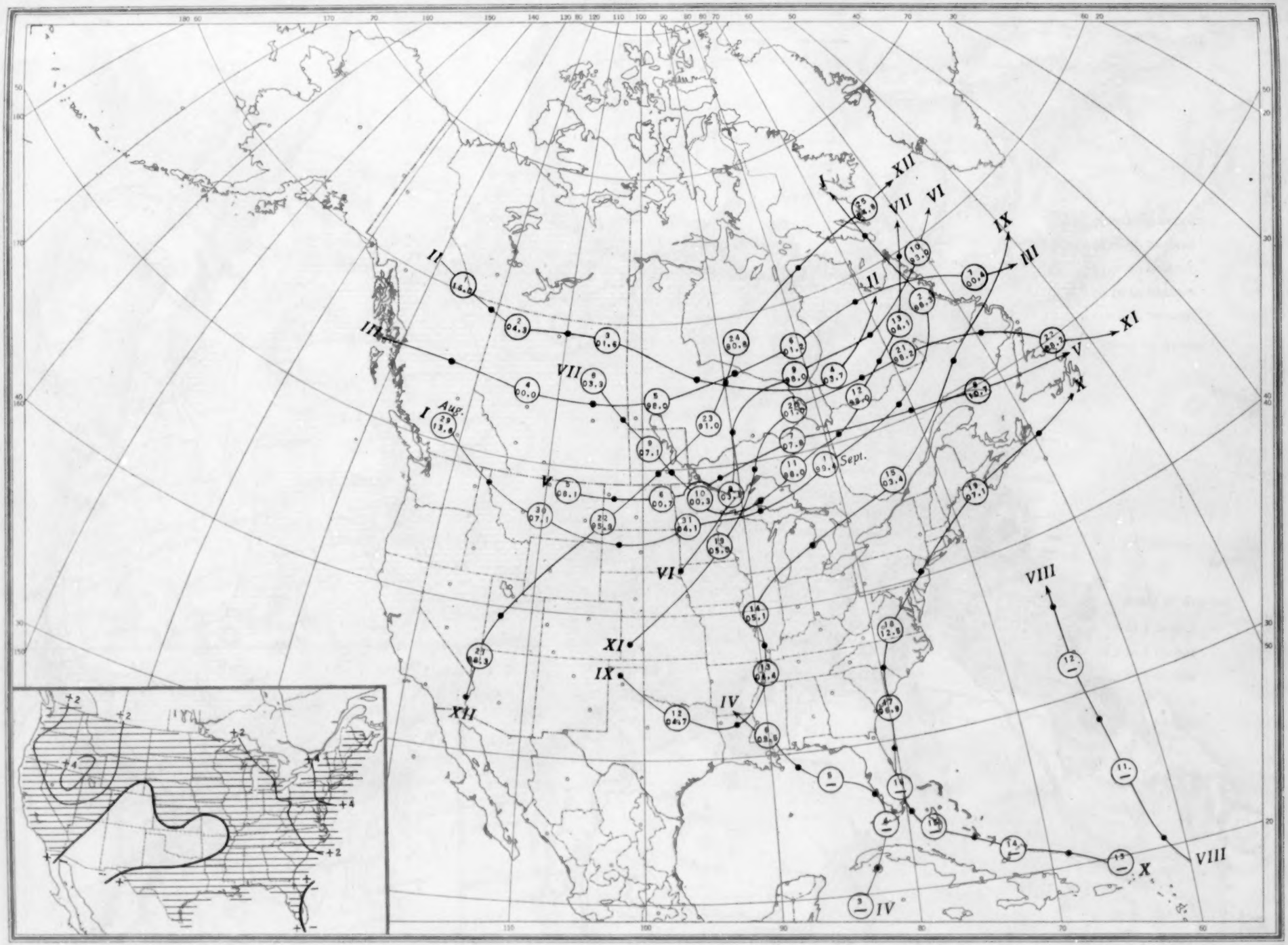
Chart III. Tracks of Centers of Cyclones, September 1945. (Inset) Change in Mean Pressure from Preceding Month

(Plotted by D. R. Harris)

Circle indicates position of anticyclone at 7:30 a. m. (75th meridian time), with barometric reading. Dot indicates position of anticyclone at 7:30 p. m. (75th meridian time)

Chart III. Tracks of Centers of Cyclones, September 1945. (Inset) Change in Mean Pressure from Preceding Month

(Plotted by D. R. Harris)



Circle indicates position of cyclone at 7:30 a. m. (75th meridian time), with barometric reading. Dot indicates position of cyclone at 7:30 p. m. (75th meridian time)

Chart IV. Percentage of Clear Sky Between Sunrise and Sunset, September 1945

Chart V. Total Precipitation, Inches, September 1945. (Inset) Departure of Precipitation from Normal

Chart V. Total Precipitation, Inches, September 1945. (Inset) Departure of Precipitation from Normal

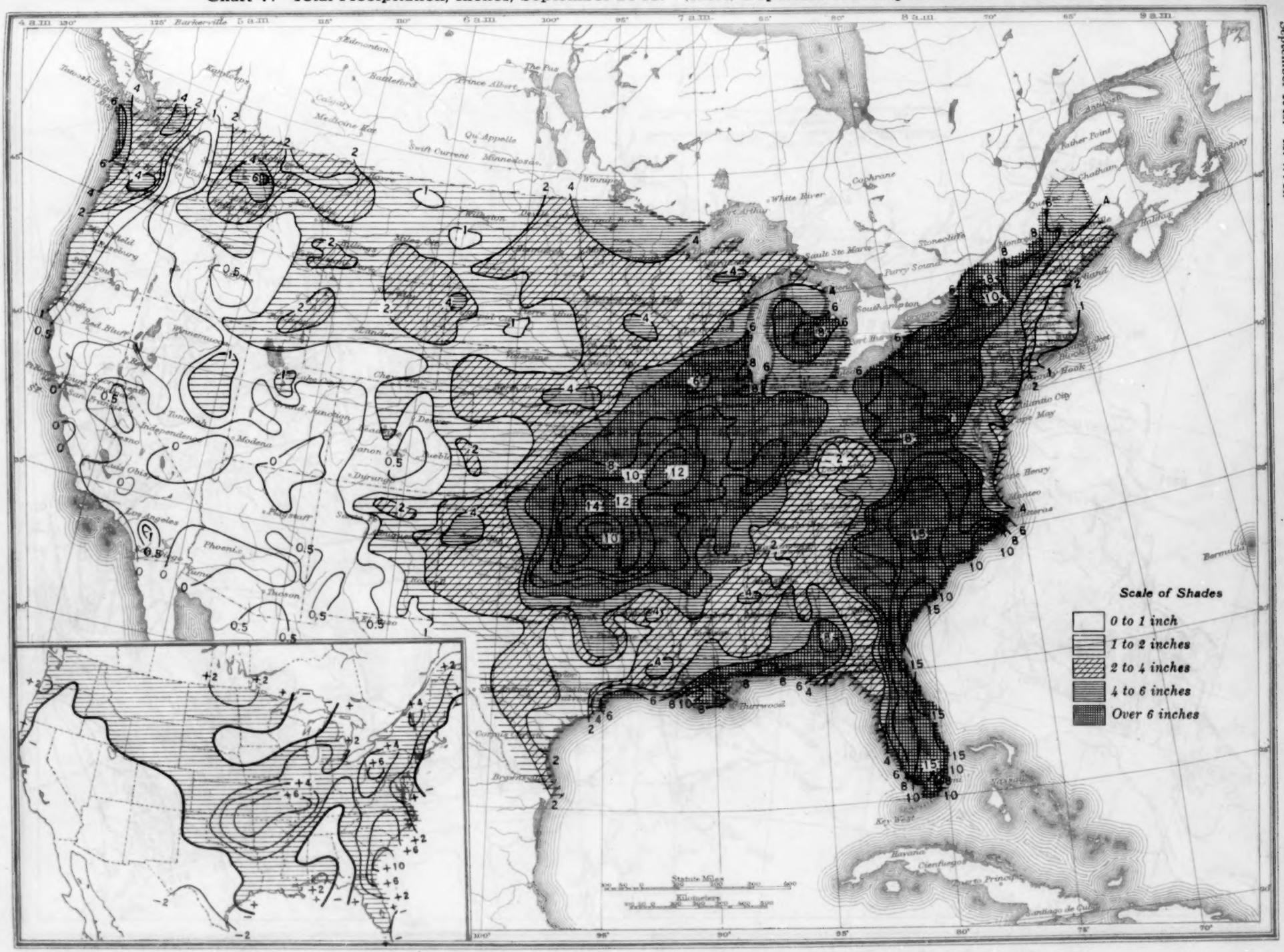


Chart VI. Isobars (mb), at Sea Level and Isotherms (°F.) at Surface; Prevailing Winds, September 1945

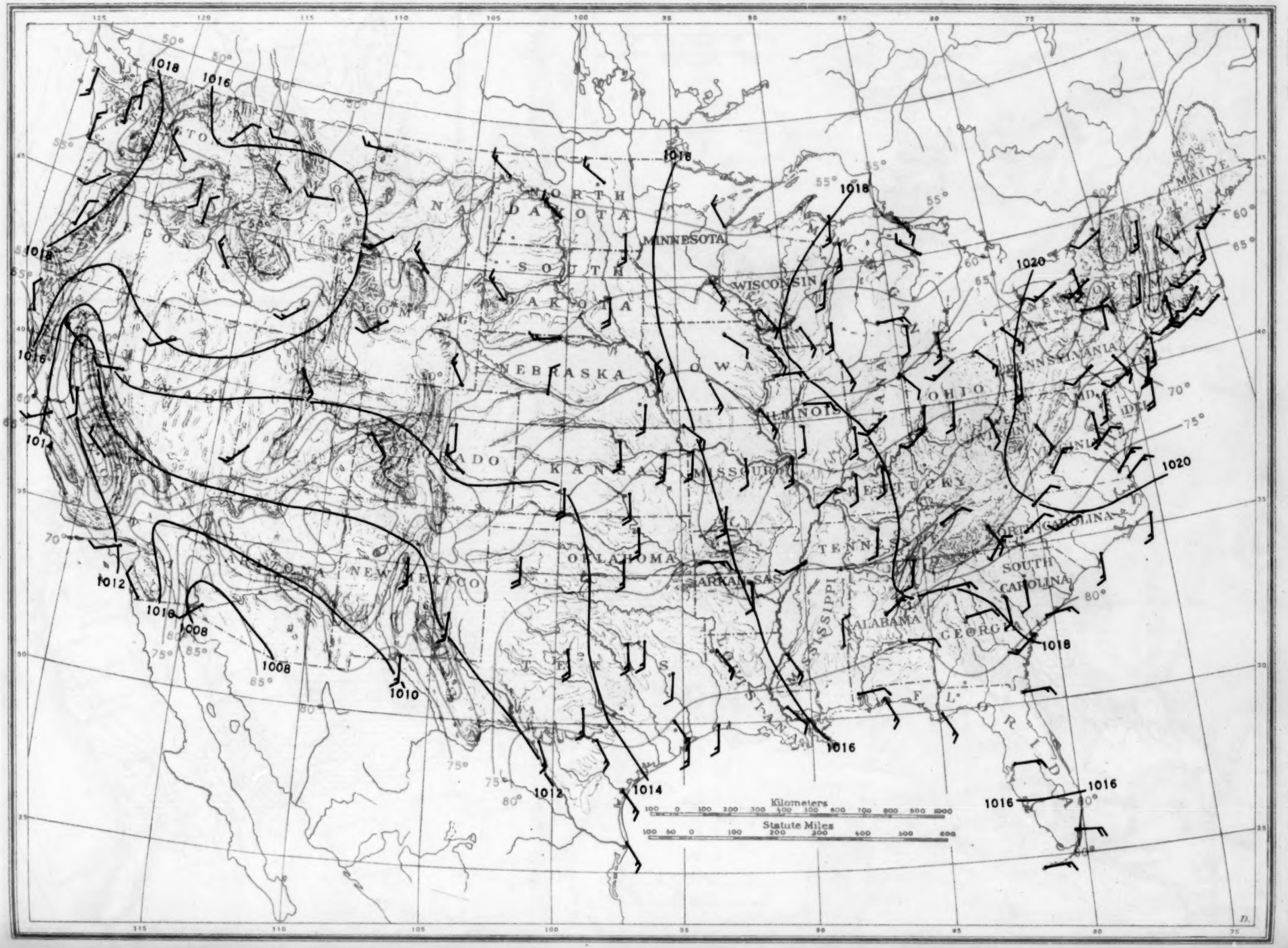


Chart VIII. Isobars (mb) for 1,524 Meters (5,000 ft.), and Isotherms (°C.), and Resultant Winds for 1,500 Meters (m. s. l.) September 1945

Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot-balloon observations at 5:00 p. m. (E. S. T.).

Chart VIII. Isobars (mb) for 1,524 Meters (5,000 ft.), and Isotherms (°C.), and Resultant Winds for 1,500 Meters (m. s. l.) September 1945

Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot-balloon observations at 5:00 p. m. (E. S. T.).

Chart IX. Isobars (mb), Isotherms (°C.), and Resultant Winds for 3,000 Meters (m. s. l.) September 1945

Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot-balloon observations at 5:00 p. m. (E. S. T.).

Chart X. Isobars (mb), Isotherms (°C.), and Resultant Winds for 5,000 Meters (m. s. l.) September 1945

Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot-balloon observations at 5:00 p. m. (E. S. T.).

Chart X. Isobars (mb), Isotherms (°C.), and Resultant Winds for 5,000 Meters (m. s. l.) September 1945

Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot-balloon observations at 5:00 p. m. (E. S. T.).

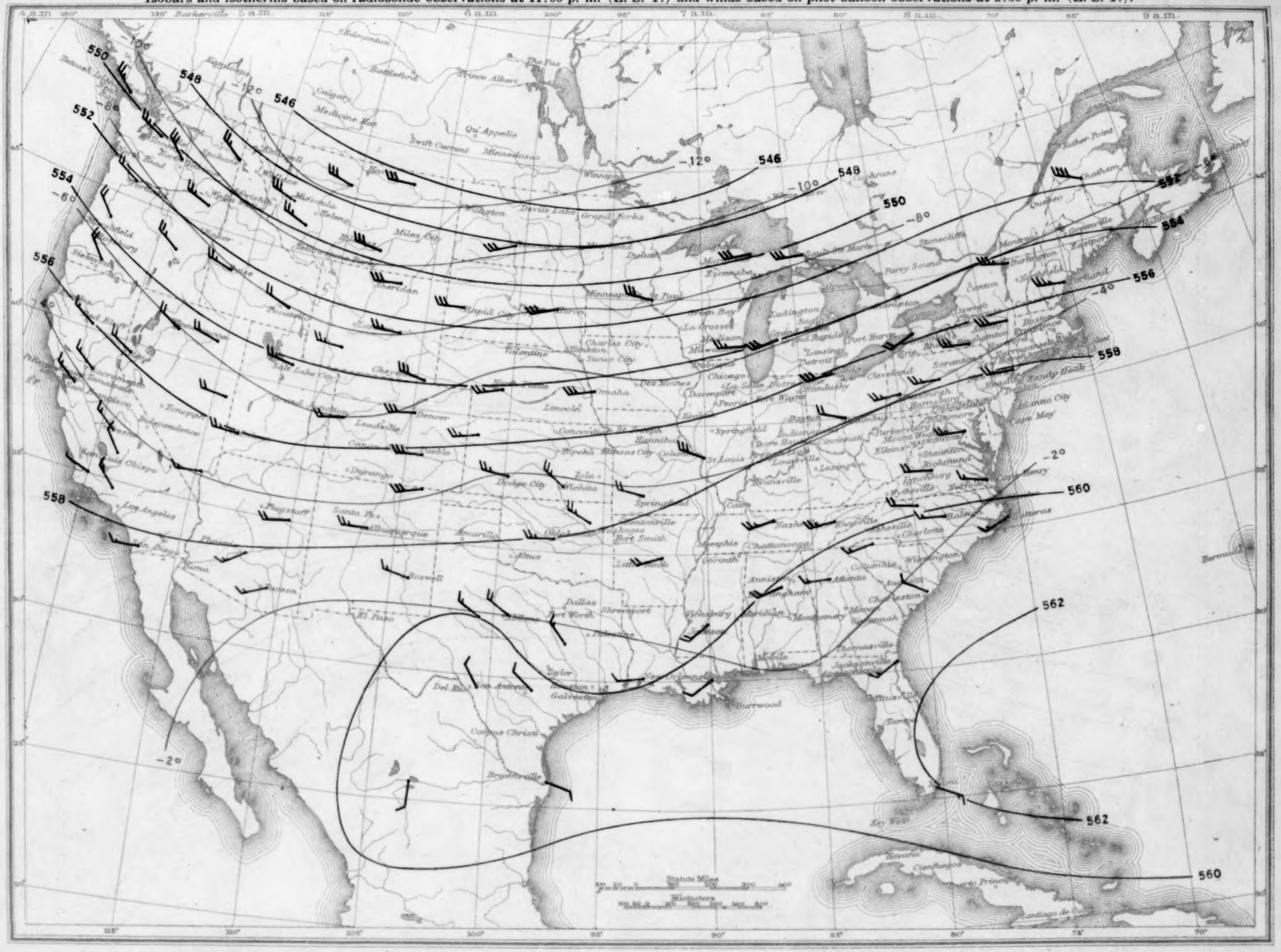


Chart XI. Isobars (mb), Isotherms (°C.), and Resultant Winds for 10,000 Meters (m. s. l.) September 1945

Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot-balloon observations at 5:00 p. m. (E. S. T.).